```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1472140 seqs, 8248589755 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-453-387A-1
1006
1 taacaccgttattctttctc....aatgcttaattattaaaaaa 1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                January 23, 2002, 18:42:32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
             em_htgo_hum: *
em_htgo_inv: *
em_htgo_rod: *
em_htg_hum: *
em_htg_inv: *
em_htg_rod: *
                                                                                                                                                                                                                                                                                                                                              em_hum:*
em_htg_other: *
                                                                                                                                                          em_sy: *
                                                                                                                                                                                                                                                                      em_ov:*
                                                                                                                                                                                                                                                                                                          em_om: *
                                                                                                                                                                                                                                                                                                                                                           em_fun:*
                                                                                                                                                                                                                                                                                                                                                                                em_ba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Search time 1581.67 Seconds (without alignments) 10492.810 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2944280
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

/cultivar="Acala SJ-2"

		AUTHORS		ORGANISM				DEFINITION	COTMYBA	promise 1	•	5 4	3 16	2 17	40	9 17	9 17	160	л <del>4</del> - 1-	3 17	2 –	10	9 8	7 17	5 1.6	16		1 16	9 11	7 18 8 18	5	7.4	3 6	20	2	N	2 2	Ņ	ı N	21	٠ <u>٠</u>	Result No. So
	Unpub	Wilki	Rosid	Eukar	CDNA		L0445	# 17	)			168	9.8	0.6	171	1.6		2		8	175	100	Э О	9.2	) B	2.8	183	5 6	9.0	7.8	189	0 A N N	201	л со л со	6.4	4.6 317	2.4	248	. 2	8	- 01	ore M
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	Lishe	ns,T.	lae; e	GOSSYPIUM NII Eukaryota; Vi	to mR	;	97.1	DNA					9	7.0	9.0	7:	٦.	7:	<b>1</b> . 1	.7:		1.7	7.7	7:	<b>7</b> .8	800	18.2	ωα.		œ œ		»φ	00	٥.		س <u>د</u>	-4.	Δ.	, UT	6	20	nery
organism-	ocatio	A. and	eurosida	viridiplanta Viridiplanta	NA.		437	urpura-,	3			828	138	197394	1398	1292	1612	1462	1033	1032	.1252	1220	. 1002 1038	960	1588	795	966	1364 795	984	1493	1337	1335	1069	1176	1284	1151	897	1003	1152	764	1006	Length
1	0	Lu,	19067	ipla Im			326	d p	· .			ω α	8	œ o	0 00	œ ¢	<b>.</b> 00	00 0	<b>20</b> 00	000	<b>α</b> α	000	သထ	œ c	<b>0</b> 00	ω ο	0 00 0	co cc	ω (	œ œ	00 (	o 00	œ c		000	x 00	ω.	00 0	o co	80	00 00	BG
ossypi	alifiers	cc.	malvales;	ne; Streptophyta	rival Acata 30-2	*****		lomain mRNA.			ALIGNMENTS	AF1/5992 AB029162	AF062887	ATCHRIV27	AF370613	AF062872	AY035145	PMU39448	AB029165	LETHM1 8GE	AMA6292	AF161711	AF371983 AF249309	AF175991	PHMYBPH31	AB029161	AF249310	AB005889	AF175990	AF062916 AF401220	LETHM16	ATCM4GENE	D88618	D88617	HVMYB1	ATU26937	AF062859	AF062860	LETHM27	ATU26936	COTMYBA	ID
			e; Go	Embry	y s vay	) ), .		ЬГИ	1														,									٠										
			η.	S C	pre-outries.	5 5 5 7 7 8 8		31-DEC-1				AB029162 GI	87	15	73	72	9 4	, o	, 0 0 0	<u>ا</u> ا	2 G	313	0 9 8 9	91	5 °	61	100	9	36										ğ.F.	A	9 CO C	Description
				heophyta;	C V C T C			1993	•			Glycine m	cabidops	abidops	abidops	cabidops	abidops	a maria	lycine m	sculentu	htirrhin haliana	mpinell	rabidops	cabidops	brida m	lycine m	rabidops	rabidops	rabidops	rabidops	sculentu	bidopsis	dryare m	za sativ	H.vulgare m	bidopsis	rabidops	rabidops	, c	dop	9	 

mRNA CDS

```
misc_feature
BASE COUNT 323
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein_bind
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Sinhes 1006;
                                                                                                                                           421
                                                                                                                                                                 421
                                                                                                                                                                                         361
                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                           21
601
                                              541
                                                                    541
                                                                                            481
                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggaccaaagagga 120
                                                                                                                                         GGGACGATCACCTTGTTGTGAAAAAGGCTCATACCAACAAAGGTGCCTGGACCAAAGAGGA
                                                                                          CACCGAATTGGATTTCAGAAACTCGCCCACATCCGTTTCCAAATCCAGTTCCATCAAAAA
           agaacccaactgtacagccagcagtggcatgactacagatgaagagcaacaagaacagct
                                                         h 100.0%;
Similarity 100.0%;
06; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=1
/protein_id="AAA33067.1"
/protein_id="AAA33067.1"
/protein_id="AAA33067.1"
/db_xref="GI.437327"
/db_xref="GI.437327"
/translation="MGRSPCCEKAHTUKGAWTKEEDQRLINYIRVHGEGCWRSLIPKAA
/translation="MGRSPCCEKAHTUKGAWTKEEDQRKWSLIAGRLPGRTDN
GILRCGKSCRLRWIMYLRPDLKRGNFTSEEDELIKLHSLLGDFRNSPTSVSKSSSIK
GILRCGKSCRLRWIMYLRPDLKRRHTRELNQTAWTWTYAFTELDFRNSPTSVSKSSSIK
KIKNYWNTHIKRKLISRGIDPQTHRELNQTAWTWTYAFTELDFRNSPTSVSKSSSIK
NPSIDFNYMSFQFKSNTDSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLE
LSIGIVSADSSRVSNANSAESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="MYB DNA-binding putative" 323. .394 209 c 204 g 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="putative"
/bound_moiety="M)
107. .133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CQNSNSNGFYSYCRPLDS*
92. .403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:3635"
/tissue_type="ovule"
/dev_stage="3-day pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note-"MYB A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _moiety-"MYB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1006; DB 8; Pred. No. 6.9e-253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pre-anthesis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat signature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                           660
                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                 540
                                                                                                                       540
                                                                                                                                               480
                                                                                                                                                                      480
                                                                                                                                                                                              420
                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                 300
   660
                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뮰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
AF336286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Locus
                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTGTGTTGGCAATTAGGTTTTGGAACAAGTGAAATTTGTAGGAACTGTCAAAATTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ttgtgttggcaattaggttttggaacaagtgaaatttgtaggaactgtcaaaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGGTAGATAACAACAATTTCCAGTTTCTTGAACAAGCTATGGTGGCTAAGGCGGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        aaaggtagataacaacaatttccagtttcttgaacaagctatggtggctaaggcggtatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGATTGTTTCAGCTGACTCATCTCGGGTATCAAATGCCAACTCGGCCGAGTCgAAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tgggattgtttcagctgactcatctcgggtatcaaatgccaactcggccgagtcgaaacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AF336286 1145 bp mRNA
Gossypium hirsutum GHMYB9 (gl
AF336286 GI:13346193
                                                                                                                                                                                                                                                                                                                                                                                                        Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Malvales; Malvaceae; Gossypium.

1. (bases 1 to 1145)
Matz.F C = -3
                                                                                                                                                                                                                                                                                                                      Submitted (14-JAN-2001) Biology, Upton, NY 11973, USA
                                                                                                                                                                                                                                                                                                                                           Matz, E.C. and Burn
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                     Unpublished
2 (bases 1
                                                                                                                                                                                                                                                                                                                                                                                          Matz,E.C. and Burr,B.
Cotton seed fibers are trichcmes
                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 1145)
                                                                  392
                                                                                                                                                                      /gene="ghmyb9"
/note="similar t
/codon_start=1
                                                                /product-"GHMYB9"
/product-"GHMYB9"
/product-"GI-1*AK19619.1"
/db_xref-"GI-1*AK19619.1"
/db_xref-"GI-1*A6194"
/translation="MGRSPCCEKAHTINKGAWTKEEDDRLIAYIRAHGEGCWRSLPKAA
/translation="MGRSPCCEKAHTINKGAWTKEEDDRLIKHSLLGKWSLIAGRLPGRTDL
GLIRCGKSCRLRWINYLRPDLKRGNFTEEEDDRLTIKLHSLLGKWSLIAGRLPGRTDLOR
EIKNYWNTHIRRKLLSRGIDPATHRPLNEASGOVTTISFGGAKEEKEKLNTNSNNNPI
GFITKDEKKIPVQERCPDLNLDLRISPPYYQQTQPESFFKTGGRTLCFICSLGVKNSKD
GTTSTITTAAGSSSSSSSHSNSNNSSGYDFLGLKSGILEYRSLEMK"
203 c 228 g 322 t
                                                                                                                                                                                                           /gene-"ghmyb9"
69. 863
                                                                                                                                                                                                                                  /tissue_type-"day
                                                                                                                                                                                                                                                          /strain="Acala Maxxa"
/db_xref="taxon:3635"
                                                                                                                                                                                                                                                                                  /organism="Gossypium
                                                                                                                                                                                                                                                                                              Socation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                         Burr, B.
      28.1%;
        Score
Pred.
                                                                                                                                                                                     to myb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ghmyb9) mRNA,
                                                                                                                                                                                                                                                 of.
       282.4; DB 8;
Nó. 2.4e-63;
                                                                                                                                                                                                                                                  anthesis
                                                                                                                                                                                                                                                                                                                                  Brookhaven National
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complete
                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-MAR-:
                     1145;
                                                                                                                                                                                                                                                                                                                                     Laboratory,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
```

Š В ş 밁 Ş

Š ₽

Š 밁 δÃ 밁 S 밁

g

₽ δÃ 밁 δÃ ~ 당 á 맑 Ş

Length Indels

764;

0

Gaps

0

```
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
ATU26936
             BASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
 ORIGIN
                                                                                                                                                                                                    FEATURES source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Snoo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                         JOURNAL
             COUNT
                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aagatgagottatcatcaagottcacagittacttggaaacaaatggtcattgattgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .GACTTCGTTGGATCAATTACTTAAGACCTGATCTTAAACGTGGCAATTTCACTGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gattaagatggataaactacttgaggcctgatcttaagagaggaaatttcactgaagaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   aaggctgctggcgttccctccccaaagctgctgggctgcttagatgtggtaagagttgca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   abggtgcctggaccaabgaggaagatcabcgcctcatcaactacatccgtgtccatggtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ttgatttgattttgtaactgatgggacgatcaccttgttgtgaaaaggctcataccaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGATGAGCTCATTATCAAGCTGCACAGCCTTCTTGGTAACAAGTGGTCTCTTATAGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGGTTGCTGGCGTTCACTCCCTAAAGCTGCTGGCCTTCTCCGCTGTGGCAAAAGTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGGTGCGTGGACTAAAGAAGAAGATGATCGCCTCATAGCTTACATCCGAGCCCATGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCTTTGTGTTACTGAATTATGGGAAGGTCTCCTTGTTGTGAGAAAGCTCATACGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                               U26936
U26936.1
                                                                                                                                                                                                                                                                                         Isolation of two novel myb-like genes from Arabidopsis on the DNA-binding properties of their products plant J. 8 (6), 963-972 (1995) 96132152
                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arabidopsis
                                                                                                                                                                                                                University, Melbourne, Victo Location/Qualifiers
                                                                                                                                                                                                                            Submitted (12-MAY-1995) Joshua L. Heazlewood, University, Melbourne, Victoria 3083, Austral
                                                                                                                                                                                                                                                    Heazlewood, J.L.
Direct Submiss:
                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATU26936
                                                                                                                                                                                                                                                                                                                                                                                                                        thale cress.
                                                                                                                                                                                                                                                                                                                                           (bases 1 to 764)
S.F. and Parish, R.W.
                                                                                                                                                                                                                                                                              bases 1 to 764)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                       Submission
           ADSKPWCDPVMEARLSLL*
140 c 177 g
                                    /translation="MGRSPCCEKAHTNKGAWTKEEDQRLVDYIRNHGEGCWRSLPKSA
GLLRCGKSCRLRWINYLRPDLKRGNFTDDEDQIIIKLHSILGNKWSLIAGRLPGRFDN
BIKNYWNTHIKRKLLSHGIDPOTHROINESKTYSSOVVYPIQNDAVEYSESVLLAVKR
TENSSDNGASTSGTTTDEDLRQNGECYYSDNSGHIKLNLDLTLGFGSWSGRIVGVGSS
                                                                                    /codon_start=1
/product="DNA-binding
/protein_id="AAA98761
/db_xref="GI:1020155"
                                                                                                                                      /clone="myb6"
15. .725
                                                                                                                                                               /strain-"Landsberg erecta'
/db_xref-"taxon:3702"
                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:1020154
                                                                                                                                                                                       organism-"Arabidopsis thaliana"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   764 bp
thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  myb6
                                                                                                   protein"
              219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLN
DNA-binding
                                                                                                                                                                                                                             Australia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-MAY-1996
protein mRNA, comm
                                                                                                                                                                                                                                         Botany,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                           La
                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98
                                                                                                                                                                                                                                                                                                                                studies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                       JOURNAL
MEDLINE
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 4
LETHM27
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                  CDS
                                                                         gene
                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              atggacgatcaccttgttgtgaaaaggctcataccaacaaaggtgcctggaccaaagag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ttgaggcotgatottaagagaggaaatttcactgaagaagaagaagaggcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     attgatccacaaactcatcgtcctctcaatcaaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATAACGAAATAAAGAATTATTGGAACACTCATATTAAGAGGAAGCTTCTTAGTCACGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTGATCCACAAACTCATCGTCAGATTAACGAATC
                                                                                                                                                                                                                                                    Lin,Q., Hamilton,W.D. and Merryweather,A. Cloning and initial characterization of 14 tomato (Lycopersicon esculentum cv. Ailsa plant Mol. Biol. 30 (5), 1009-1020 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                      L.esculentum
X95296
                                                                                                                                                                                                                                                                                                                               Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids I; Solanales; Solanaceae; Solanum;
                                                                                                                                                                                                                                                                                                                                                                                             x95296.1 G:
myb-related
                                                                                                                                                                                        Direct Submission Submitted (23-JAN
                                                                                                                                                                                                                                           96270378
                                                                                                                                                                                                                                                                                                                                                                     Lycopersicon esculentum
                                                                                                                                                                                                                                                                                                                                                                                    tomato
                                                                                                                                                                              Norwich,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 LETHM27
                                                                                                                                                                                                                   Lin,Q.
                                                                                                                                                                                                                                                                                                                   Lycopersicon.
                                                                                                                                                                                                                             (bases 1 to
                                                                                                                                                                                                                                                                                                       (bases 1 to 1152)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                             1 (23-JAN-1996) Q.
NR4 7UH, UK
                      111. .932
/gene="THM27"
/note="myb-related"
                                                                                                 /organism="Lycopersicon
/cultivar="Ailsa Craig"
/db_xref="taxon:4081"
/dev_stage="3 weeks old
/product="transcription
             /codon_start=1
                                                           /gene="THM27"
                                                                            /tissue_type="hypocotyl"
111. .932
                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                             gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26.2%;
                                                                                                                                                                                                                             1152)
                                                                                                                                                                                                                                                                                                                                                                                               THM27
                                                                                                                                                                                                                                                                                                                                                                                                                                  for THM27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                               gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     e 263.8; us c,
1. No. 1.7e-58;
1-ches 82;
                                                                                                                                                                                          Lin,
                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                                                                                                                                                                                                                                                                                                             transcription
                                                                                                                                                                                          John
                                                                                                    seedling"
 factor*
                                                                                                                                      esculentum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        453
                                                                                                                                                                                          Innes Centre,
```

PLN

10-JUN-1996

418

358

254

314

298 194 238

factor

Craig) myb-related

CDNAS

from

Colney

Lane,,

BASE COUNT ORIGIN

factor"

```
Query Match
Best Local Similarity
Matches 316; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  attgatccacaaactcatcgtcctctcaatcaaacggccaataccaacacagtcacagc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATAACGAGATAAAAAACTATTGGAACACACATATAAGACGAAAGCTCTTGAGTCGAGGT 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAGATGAAAGACTAATTTCTTACATTAGAGCTCATGGTGAAGGTTGTTGGAGGTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               atgggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggaccaaagag 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTGATCCAACAACACATAGATCAATCAATGATCCTACTACAATACCAAAAGTTACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCATAGCCTCCTTGGAAACAAGTGGTCGCTTATAGCAGGAAGATTACCAGGAAGAACA 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTAAGACCTGACCTTAAACGTGGTAACTTTACTGAAGAAGAAGAAGAACTCATTATCAAA 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Stracke,R. and Weisshaar,B.
Direct Submission
Submitted (23-NOV-1999) Dept. Biochemie,
Zuechtungsforschung, Carl-von-Linne-Weg J
                                                                                                                                                                                                                                                                           Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                 AF207991
                                                                                                                                                                                                                                                                                                                                                                                                                                                Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AF207991
                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                              1 (bases 1 to 639)
Stracke, R. and Weisshaar, B
                                                                                                                                                                                                                                                                                                                                      Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                           thale cress.
                                                                                                                                                                                                                                                                                                                                                                                                AF207991.1 GI:6644277
                                                                                                                                                                                                                         R2R3-MYB transcription factor gene nomenclature
                                                                                                                                                                      (bases 1 to 639)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /protein_id="CAA64614.1"
/db_xref="GI:1157484"
/db_xref="SPTREMBL:043525"
/db_xref="SPTREMBL:043525"
/translation="MGRSPCCEKAHTUNGAWTKEEDERLISYIRAHGEGCWRSLPKAA
/translation="MGRSPCCEKAHTUNGAWTKEEDELIIKLHSLLGNKWSLIAGRLPGRTDN
GLLRCGKSCRLRWINYLRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDN
GLKNYWNTHIRRKLLSRGIDPTTHRSINDPTTIPKVTTITFAAAHENIKDIDQQDEMI
/organism="Arabidopsis thaliana"
/cultivar="Columbia"
/db_xref="taxon:3702"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIKAEFVETSKESDNNEIIQEKSSSCLPDLNLELRISPPHHQQLDHHRHHQRSSSLCF
TCSLGIQNSKDCSCGSESNGNGWSNNMVSMNIMAGYDFLGLKTNGLLDYRTLETK"
179 c 198 g 341 t
                                                                         ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25.3%;
75.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA PLN putative transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 254.2; DB 8 Pred. No. 5.9e-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8,
                                                                                           10, Koeln D-50829, Germany
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                factor
                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-DEC-1999
(MYB8) mRNA
                                                                                                                                                                                                                           Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
 JOURNAL
MEDLINE
REFERENCE
AUTHORS
                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                              KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                          RESULT
AF062860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                   VERSION
                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                           TITLE
                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAGATCAACGTCTTATTGATTATATACGTAATCATGGTGAAGGCTCTTGGCGTTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGGAAGATCACCATGTTGTGAAAAGGCTCACATGAACAAAGGAGCATGGACTAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCGTCCTGATCTTAAACGTGGAAATTTCACTGATGGTGAAGAGCAAATCATTGTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATAATGAGATTAAAAATTATTGGAACACTCATATAAAAAGGAAGCTTCTTAACCGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCATAGTTTATTTGGCAACAAATGGTCTTTGATTGCTGGGAAATTACCGGGAAGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ttgaggcctgatcttaagagaggaaatttcactgaagaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atgggacgatcaccttgttgtgaaaaggctcataccaacaacgagtgcctggaccaaagag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  304;
                                                                                                                                                                                                                                                                                                                Arabidopsis thaliana putative transcription complete cds.

AF062860
                                                    Kranz,H.D., Denekamp,M., Greco,R., Jin,H., Leyva,A., Franz,H.D., Denekamp,M., Bevan,M., Martin,C., Smeeke Petroni,K., Urzainqui,A., Bevan,M., Martin,C., Smeeke Tonelli,C., Paz-Ares,J. and Weisshaar,B. Towards functional characterisation of the members of gene family from Arabidopsis thallana Plant J. 16 (2), 263-276 (1998)
                                    gene family from Plant J. 16 (2), 99056848
                                                                                                                                                                              Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                        Arabidopsis thaliana
                                                                                                                                                                                                                                                                thale cress.
                                                                                                                                                                                                                                                                                                   AF062860.1
   Meissner,R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
 (bases 1 to 1003)
ssner,R., Jin,H.-L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation="MGRSPCCEKAHNKRAWTKEEDORLIDYIRNHGEGSWRSLPKSV
GLIRCGKSCRIRWINTIRDLKRONTTDGEEQIIVKLHSLFGRKWSLIAGKLPGRTDN
EIKKYWNTHIXRKLLNRGIDFKTHGSIIEFKTTSFHFRNEDLKSTFPGSYKLKKETSC
ENCASTSGTTTDEDLRLSVDCDYRYDHLDKELNLDLTLGYSPTRFVGVGSCY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product="putative transcription
/protein_id="AAF20989.1"
/db_xref="GI:6644278"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="R2R3-MYB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="MYB8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene-"MYB8"
                                                                                                                                                                                                                                                                                                 GI:3941411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             112 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 253.6; DB Pred. No. 8e-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             148 g
 Martin, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             184 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                member"
 and
```

84; 8;

Indels Length

0;

Gaps

0

60

639;

JOURNAL REFERENCE

FEATURES

Bevan, M

Smeekens,S

Meissner, R

of.

the

R2R3-MYE

TITLE JOURNAL

AUTHORS

REFERENCE AUTHORS

TITLE

SOURCE

factor

09-DEC-1998

418

300 358 298

238 120

180

(MYB4) mRNA,

VERSION KEYWORDS

RESULT AF207991

DEFINITION ACCESSION

Š 밁 Š 밁 Š 밁 ş 밁 δÃ 8 Ş 밁 Š

> 351 299 291 239 231 179 171 119 111 59

```
RESULT
AF062859
                                                                                                                                                                     δ
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                     밁
  SOURCE
ORGANISM
                                                                           DEFINITION
                         KEYWORDS
                                      VERSION
                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sgo
                                                                                                                                                                                                                             354
                                                                                                                                                                                                                                                                                                    214
                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                      154
                                                                                                                                                                                                                                                                                                                                                                              174
                                                                                                                                                                                                                                                                                                                                                                                                                             114
                                                                                                                                                                             414
                                                                                                                                                                                                      334
                                                                                                                                                                                                                                                      274
                                                                                                                                                                                                                                                                             294
                                                                                                                                                     394
                                                                                                                                                                                                                                                                                                                                                                                                       94
                                                                                                                                                                                                                                                                                                                                                                                                                                                      34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                aactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggacca 113
                                                                                                                                                                                                                                                                                                   aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctgtcgtcgtt 173
                                                                                                                                                                                                                                                                                                                                                      CTCTCCCCAAAGCCGCCGGACTTCTTCGCTGTGGCAAGAGCTGCCGTCTCCGGTGGATCA
                                                                                                                                                                                                                                                                                                                                                                 coctcoccaaagotgotgotgottagatgtggtaagagttgcagattaagatggataa 233
                                                                                                                                                                                                                                                                                                                                                                                                       AAGAAGAGGACGAGAGGCTCGTCGCCTACATTAAAGCTCATGGAGAAGGCTGCTGGAGAT
                                                                                                                                                                   gaggaattgatccacaaactcatcgtcctctcaatcaaac
                                                                                                                                                                                                                TCAAGCTCCATAGCCTTCTTGGCAACAAATGGTCGCTTATTGCCGGGAGATTACCGGGAA
                                                                                                                                                                                                                                                                   tcmagcttcacagtttacttggaaacamatggtcattgattgctggamgattaccmggam
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGGATTGATCCAACGAGTCATAGACCAATCCAAGAATC
                                                                                                                                                                                                      GAACAGATAACGAGATAAAGAACTATTGGAACACGCATATACGAAGAAAGCTTATAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        305;
                                     Arabidopsis thaliana process complete cds.
AF062859
AF062859.1 GI:394140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
Submitted (04-MAY-1998) Abt.
Carl-von-Linne-Weg 10, Koeln
Location/Qualifiers
thale cress.
Arabidopsis thaliana
                                                                                        AF062859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLLRCGKSCRLRWINYLRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDN
EIKNYWNTHIRRKLINRGIDPTSHRPIQESSASQDSKDIQLEPVTSNTINISFTSAPK
VETFHESISFPGKSEKISMLTFKEEKDECPVQEKFPDLNLELRISIPDDVDRLQGHGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RSLEMK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product="putative transcription/protein_id="AAC83582.1"
/db_xref="GI:3941412"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Arabidopsis
/cultivar="Columbia"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        {f STTPRCFKCSLGMINGMECRCGRMRCDVVGGSSKGSDMSNGFDFLGLAKKETTSLLGF}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:3702"
/chromosome="IV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        translation="MGRSPCCEKAHINKGAWTKEEDERLVAYIKAHGEGCWRSLPKAA/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="MYB4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'gene="MYB4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="MYB4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'allele="Col"
                                      GI:3941409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24.7%;
76.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               near marker ve025"
                                                                                        897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                           putative transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               234 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R2R3-MYB factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  248;
No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Biochemie, MPI fur
D-50829, Germany
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 thaliana"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      family member"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95;
                                                                                                                                                     433
                                                                                                                                                                             453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             factor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                             factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zuchtungsforschung,
                                                                             (MYB3) mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                       153
                                                                                                                                                                                                                                                                                                      273
                                                                                                                                                                                                                                                                                                                              293
                                                                                                                                                                                                                                                                                                                                                      213
                                                                                                                                                                                                                                                                                                                                                                                                                                                        93
                                                                                                                                                                                                                                                       333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                    BASE CO
                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                            ğ
                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                            8
                                                                                                                           δÃ
                                                                                                                                                      밁
                                                                                                                                                                            8
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
     밁
                        γQ
                                                   밁
                                                                         20
                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                               COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                        131
                                                                                                                                                                                                                              206
                                                                                                                                                                                                                                                                                146
                                                                                                                                                       191
                            446
                                                     311
                                                                             386
                                                                                                      251
                                                                                                                              326
                                                                                                                                                                              266
                                                                                                                                                                                                                                                       71
                                                                                                                                                                                                                                                                                                      11
                                                                                                                                                                                                                                                                                                                                98
                                                                                                                                                                                                                                                                     cgtgtccatggtgaaggctgctggctgggttccctccccaaagctgctgggctgcttagatgt
                                                                                                                                                                                                                                                                                                                    gctcataccaacaaggtgcctggaccaaaggaggaagatcaacgcctcatcaactacatc
                   aatcaaacggcc 457
                                                   ACTCATATCAAGAGGAAGCTTCTCAGCCGTGGGATTGATCCAAACTCTCACCGTCTGATC
                                                                acacacatcaaaayaaaycttataaycayayyaattgatccacaaaactcatcgtcctctc
                                                                                                     TTTACTGAAGAAGAAGATGAACTCATCAAGCTCCATAGCTTGCTCGGTAACAAATGG
                                                                                                                                                                   ttcactgaagaagaagatgagcttatcatcaagcttcacagtttacttggaaacaaatgg
                                                                                                                                                                                                       GGTAAGAGTTGTAGATTGAGATGGATGAATTATCTAAGACCAGATCTCAAAAGAGGCAAT
                                                                                                                                                                                                                   ggtaagagttgcagattaagatggataaacctacttgaggcctgatcttaagagaggaaat
                                                                                                                                                                                                                                                       CGTAAACACGGTGAAGGTTGCTGGCGATCTCTCCCCTCGCGCCGGGATTACAAAGATGT
                                                                                                                                                                                                                                                                                                        GCTCACATGAACAAAGGAGCTTGGACTAAAGAAGAAGATCAGCTTCTTGTTGATTACATC
      AACGAATCCGTC
                                                                                                                                                                                                                                                                                                                                                        291;
                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                        Conservative
```

Indels

0

Gaps

0

325

265

130

190

382

```
Direct Submission
Submitted (04-MAY-1998) Abt.
Submitted (04-MAY-1998) Abt.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene family from Arabidopsis thaliana Plant J. 16 (2), 263-276 (1998) 99056848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eu Rosidae; eurosids II; Brassicales; Brassicaceae; Arab 1 (bases 1 to 897)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carl-von-Linne-Weg 10, Koeln
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Towards functional characterisation of the members of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kranz, H.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tonelli,C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Petroni, K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Meissner,R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 897)
                                                                                                                246
                                                                                                                              /translation="MNKGAWTKEEDQLLVDYIRKHGEGCWRSLPRAAGLQRCGKSCRL RWMNYLRPDLKRCWFTEEDDELIIKLHSLLGNKWSLIAGRLDGRTDNEIKNYWNTHIK RKLLSRGIDDNISHRLINESVYSPSSLQNDVYETIHLDFSGPVKPEPVREBIGMVNNCE SSGTTSEKDYGNEEDWYLNLELSVGPSYRYESTRKVSVVDSAESTRRWGSELFGAHES DAVCLCCRIGLFRNESCRNCRYSDVRTH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..., Urzaingi..., Jrcco,k., Jin,H., Leyva,A., Paz-Ares,J. and Weisshaar,B. unctional charactering.
                                                                                                                                                                                                                          /product-"putative transcription
/protein_id-"AAC83581.1"
/db_xref-"GI:3941410"
                                                                                                                                                                                                                                                                                                     /gene="MYB3"
/note="MYB3;
                                                                                                                                                                                                                                                                                                                                                                                                                    /map="near marker g3829"
                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:3702"
/chromosome="I"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Arabidopsis
/cultivar="Columbia"
                                                                                                                                                                                                                                                                                                                                                                /allele="Col"
                                                                                                                                                                                                                                                                                                                                                                                  ′gene="MYB3"
                                                                                                                                                                                                                                                                                 codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                    . .897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jin, H.-L.,
                                                                                                                153 c
                 24.18; 78.28;
Score 242.4; DB Pred. No. 7.1e-53 0; Mismatches 8
                                                                                                                                                                                                                                                                                                         R2R3-MYB factor family member"
                                                                                                                  235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Martin,C.
                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D-50829,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biochemie,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                thaliana"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and Bevan, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Germany
                                       œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MPI fur
                                                                                                                                                                                                                                                                    factor"
                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            core eudicots
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Smeekens, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2uchtungsforschung,
                                         897;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Meissner, R.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R2R3-MYB
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
  В
                                                        ð
                                                                                                                 밁
                                                                                                                                                                       ş
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
ATU26937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  เอดเร
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
     308
                                                           355
                                                                                                                                                                                                                                     188
                                                                                                                                                                                                                                                                                           235
                                                                                                                                                                                                                                                                                                                                                    128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        115
                                                                                                                 248
                                                                                                                                                                          295
                                                                                                                                                                                                                                                                                                                                                                                                            175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGCTTCATAGCCTCCTAGGCAACAAGTGGTCTTTGATTGCGGCGAGATTACCTGGAAG
                                                                                                                                            CTATCTCCGACCTGATCTCAAAAGAGGAAACTTTACACATGATGAAGATGAACTTATCAT
                                                                                                                                                                                                                                                          ctacttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcat
                                                                                                                                                                                                                                                                                                                                              TCTTCCTAGAGCCGCTGGTCTCCCTTCGCTGCGGTAAAAGCTGCCGTCTTCGGTGGATTAA
                                                                                                                                                                                                                                                                                                                                                                                 cctccccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaa 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAAGAAGATGAGAGACTAGTCTCTTACATCAAGTCTCACGGTGAAGGTTGTTGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          agaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgttc 174
AACAGATAACGAGATCAAGAACTACTGGAACACACATATAAAGAGGAAGCTTTTGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission

Direct Submission

Submitted (12-MAY-1995) Joshua L. Heazlewood, Botany, Botany, Su
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Li,S.F. and Parish,R.W.
Isolation of two novel myb-like genes from Arabidopsis on the DNA-binding properties of their products Plant J. 8 (6), 963-972 (1995)
96132152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Heazlewood, J.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        thale cress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           U26937.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arabidopsis thaliana clone myb7 DNA-binding protein mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATU26937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 844)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 844)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation="MGRSPCCEKEHMNKGAWTKEEDERLVSYIKSHGEGCWRSLPRAA GLLRCGKSCRLRWINYLRPDLKRGNT*HDEDELIIK.HSLLGNKWSLIAARLPGRTDN EIKNYWNTHIKRKLLSKGIDPATHRGINEAKISDLKKTKDQIVGDVSF*VTKFEETDKS GDQKQNKYIRNGLVCKEERTVTVEEKIGPDLNLELRISPPWQNQREISTCTASRFYMEN DMECSSETVKCQTENSSSISYSSIDISSSNVGYDFLGLKTRILDFRSLEMK" 137 c 200 g 218 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /codon_start=1
/product="DNA-binding protein"
/protein_id="AAAA99762.1"
/db_xref="GI:1020157"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /strain="Landsberg erecta"
/db_xref="taxon:3702"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Arabidopsis thaliana"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'clone-"myb7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:1020156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    234.6; DB 8
No. 7.8e-51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  844;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Гa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and studies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
367
                                                                                                                                                                                                                                                                                                                                              187
                                                                                                                 307
                                                                                                                                                                    354
                                                                                                                                                                                                                            247
                                                                                                                                                                                                                                                                                     294
                                                                                                                                                                                                                                                                                                                                                                                                                                                            127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
```

```
JOURNAL
REFERENCE
AUTHORS
TITLE
   밁
                               Ş
                                                                   밁
                                                                                           Qy
                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
AF034134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Locus
                                                                                                                                Query Match
Best Local Similarity 71.3
Matches 286; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
   106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                415
                                  96
                                                                   46
                                                                                                  36
acaaaggtgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccatg
                                                                aggaattgatccacaaactcatcgtcctctcaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGGATTGATCCAGCCACTCATAGAGGGATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rosidae; euros...

1 (bases 1 to 1151)

Loguercio, L.L.; Zhang, J. and Wilkins, T.A.

Loguercio, L.L.; Zhang, J. and Wilkins, T.A.

Structure and expression of six classes of myb-domain

Structure and expression (Gossypium hirsutum L.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AF034134 1151 b
Gossypium hirsutum
mRNA, complete cds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         upland cotton.
Gossypium hirsutum
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Rosidae; eurosids II; Malvales; Malvaceae; Gossypium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (13-NOV-1997) Agronomy & Range Science, University California, One Shields Ave., Davis, CA 95616-8515, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 (bases 1 to 1151)
Loguercio, L.L., Zhan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AF034134.1
                                                                                                                                                                                                                                      382
                                                                                                                                                                                                                              102..257
/note="putative MYB DNA-binding 258..412
/note="putative MYB DNA-binding /note="putative MYB DNA-binding 215 c 240 g 314 t
                                                                                                                                                                                                                                                                                                                               /product-"MYB-like DNA-binding domain protein"
/protein_id-"AAC04720.1"
/db_xref-"GI:2921340"
/tanslation-"MRKPCCDKQGTNKGAWSKQEDQKLIDYIRIHGEGCWRSLPKAAG
/translation-"MRKPCCDKQGTNKGAWSKQEDLIIKLHALLGNRWSLIAGRLPGRTDNE
LHRCGKSCRLRWINYLRPDIKRGNFAQDEEDLIIKLHALLGNRWSLIAGRLPGRTDNDD
VKNYWNSHIKRKLMKMGIDPNNHKLNQYPHHVGPLNPTTTNSMDVACKLRVCSTDNDD
GISDAASYLEDATPPTGISNLDLDLTIAFPSSPIKNIIEESQQKTASIVTNDEEEQYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /function="putative MYB-like transcription /note="similar to MYB A encoded by GenBank Number L04497"
                                                                                                                                                                                                                                                                                                                    VPTLLLFR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Gossypium hirsutum"
/cultivar="Acala:SJ-2"
/db_xref="taxon:3635"
/dev_stage="3 days pre-anthesi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="Cmy-0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'note-"MYB-domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="Cmy-0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tissue_type="ovule"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                 21.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhang, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bp mRNA
m MYB-like DNA-binding
                                                                                                                                Score 217; DB 8;
Pred. No. 3.3e-46;
0; Mismatches 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wilkins, T.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              domain
                                                                                                                                                                                                                                                                                   domain
                                                                                                                                                                 Length 1151;
                                                                                                                                                                                                                                                  domain repeat
                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         度
02<sup>2</sup>MAR-1998
n protein (Cmy-O)
                                                                                                                                                                                                                                                                                   repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    factor"
Accession
                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genes
                                                                                                                                                                                                                                                      R3 "
                                                                                                                                                                                                                                                                                       R2"
                                                                                                                                   Gaps
                                155
 165
                                                                 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õŧ,
                                                                                                                                  0,
```

```
γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
HVMYB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                   JOURNAL
MEDLINE
COMMENT
                                                                                                                                                                                                                                                                                 JOURNAL
MEDLINE
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Snoo
                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     166
                                                     SdC
                                                                       gene
                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAGGCTGAGATGGATAAATTACTTAAGACCAGATATCAAACGTGGTAACTTTGCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGTAGATTACCAGGAAGAACAGATAATGAAGTGAAGAACTATTGGAATTCCCCATATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACGAAGAGGACTTAATTATCAAACTCCATGCTCTCCTTGGTAACCGGTGGTCACTGATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGAAAGCTAATGAAGATGGGGATCGATCCTAATAACCAT
                                                                                                                                                                                                                                                                                                         Mol. Gen:
89313655
                                                                                                                                                                                                                                                                                                                 Multiple genes are transcribed in Hordeum vulgare and Zea mays carry the DNA binding domain of the myb oncoproteins Mol. Gen. Genet. 216 (2-3), 183-187 (1989)
                                                                                                                                                                                                                                                                                                                                                                                 Submitted (20-JAN-1993) W. Rohde, Max-Planck-Inst zuechtungsforschung, Carl-von-Linne-Weg 10, 5000 K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                H. vulgare myb1 mRNA.
X70877 X53478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HVMYB1
                                                                                                                                                                                                                                      chimeric Myb promoter/Gus gene
Plant J. 4 (3), 411-422 (1993)
                                                                                                                                                                                                                                                                                                                                                  Marocco, A., Wissenbach, M., Becker, D., Salamini, F. and Rohde, W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hordeum vulgare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA-binding protein;
                                                                                                                                                                                                                                                              dyM
                                                                                                                                                                                                                                                                        Rohde, W.
                                                                                                                                                                                                                                                                                  Wissenbach, M.,
                                                                                                                                                                                                                                                                                                                                                                       Zuechtungsforschung, 2 (bases 1 to 1284)
                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                  Rohde, W.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Pooideae; Triticeae;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                              (bases 1 to 1284)
                                                                                                                                                                                                                                                              genes from Hordeum vulgare:
                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 1284)
                                                                                                                                                                                                         x70877 and x70879 for related Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GI:19050
/product="MybHv1"
/prote1n_1d="CAA50222.1"
/db_xref="GI:19051"
                                                                                                                                      /haplotype="diploid"
/tissue_type="leaf"
                                                                                                                                                              /strain="Abyssinian 2231"
/db_xref="taxon:4513"
                                                                                                                                                                                    /organism="Hordeum vulgare"
                                                                                    /note="myb DNA-binding
                                                                                            'gene="myb1"
                                                                                                                  'clone-"cmybHv5"
                                                                                                                               clone_
                                                             'gene="myb1"
                               codon_start-1
                                       gene-"myb1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1284 bp
                                                       .1015
                                                                                                                                                                                                                                                                                   Uberlacker, B.,
                                                                                                                               11b-"NM1149"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             myb
                                                                                                                                                                                                                                                                                                                                                                                                                                         Hordeum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA binding
                                                                                                                                                                                                                                                     genes
                                                                                                                                                                                                                                                                                  Vogt, F.,
                                                                                                                                                                                                                                                   tissue-specific expression in transgenic tobacco
                                                                                     domain"
                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              domain
                                                                                                                                                                                                                                                                                                                                                               Paz-Ares, J.,
                                                                                                                                                                                                                      and
                                                                                                                                                                                                                                                                                     Becker, D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PLN
                                                                                                                                                                                                                      CDNA
                                                                                                                                                                                                                      sequences
                                                                                                                                                                                                                                                                                                                                                                                      Koeln
                                                                                                                                                                                                                                                                                                                                                                                                fuer
                                                                                                                                                                                                                                                                                      Salamini, F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                Saedler, H.,
                                                                                                                                                                                                                                                                                                                                                                                      30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    345
                                                                                                                                                                                                                                                                 O.F
                                                                                                                                                                                                                                                                                                                                            that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                     γΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                   SOURCE
ORGANISM
                                                                                                                                                                                                                                                       VERSION .
KEYWORDS
                                                                                                                                                                                                                                                                                                            RESULT
D88617
                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                   Focus
                                     FEATURES
                                                                                                                                                                                                                                                                              CCESSION
                                                                                                                                                                   AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                               JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                   TITLE
                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       207
                                                                                                                                                                                                                                                                                                                                                        567
                                                                                                                                                                                                                                                                                                                                                                             414
                                                                                                                                                                                                                                                                                                                                                                                                  507
                                                                                                                                                                                                                                                                                                                                                                                                                        354
                                                                                                                                                                                                                                                                                                                                                                                                                                            447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             267
                                                                                                                                                                                                                                                                                                                         11
```

```
aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGGATCGACCCGGTGACCCACCGCGCGATCAA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACGGACAACGAGATCAAGAACTACTGGAACACGCACATCCGGAGGAAGCTGACGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTGCCCAAGGCCGCCGCGCTGCCCCCCGCTGCGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ccctccccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGAGGACGACCGACTCACCGCCTACATCAAGGCGCACGGCGAGGGCTGCTGGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gaggaattgatccacaaactcatcgtcctctcaa 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCAAGCTCCACAGCCTCCTGGGAAACAAATGGTCCCTGATAGCCGGGAGACTGCCGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACT ACCTCCGCCCCGACCTCAAGCGCGGCAACTTCAGCCACGAGGAGGACGAGCTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        283;
                                                                                                                                                                                                                                                                                                              D88617.1 GI:2605616
Osmybl; OSMYB1.
Oryza sativa seed cDNA to mRNA.
Oryza sativa
Oryza sativa
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Viridiplantae; Streptophyta; Poales; Poaceae;
                                                                                                                                                                                       Submitted (28-OCT-1996) to the DDBJ/EMBL/GenBank databases. Suzuki, National Institute of Agrobiological Resources, Depa of Biotechnology; Kannondai 2-1-2, Tsukuba City 305, Japan (E-mail:hnskhrk@abr.affrc.go.jp, Tel:+81-298-38-8450,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D88617
                                                                                      Cloning and expression (
Gene 198 (1-2), 393-398
                                                                                                                                      Suzuki, A., Suzuki, T.,
                                                                                                                                                                                                                                                               Direct Submission
                                                                                                                                                                                                                                                                               Suzuki, A
                                                                                                                                                                        Fax:+81-298-38-8397)
                                                                                                                     Takaiwa, F
                                                                                                                                                                                                                                                                                                 (bases 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          sativa mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="SWISS-PROT: P20026"
/translation="MGRSPCCEKAHTMKGAMTKEEDDRLTAYIKAHGEGGWRSLPKAA
/translation="MGRSPCCEKAHTMKGAMTKEEDDLIKLHSLLGNKWSLIAGRLPGRTDN
GLLRCGKSCRLRWINYLRPDLKRGNFSHEEDELIIKLHSLLGNKWSLIAGRLPGRTDN
EIKNYWNTHIRRKLTSRGIDPTHTRAINSDHAASNITISFESAQRDDKGAVFFRDAEP
AKAAAAAAISHHVHHHRSNPQLDWGQGKPLKCPDLNLDLCISPPIHEDPMVDTKPV
VKREAGVGVGVVGLCFSCSMGLPRSSDCKCSSFMGLRTAMLDFRSIEMK"
                                                                                   (1-2),
                                Location/Qualifiers
1. .1176
/organism-"Oryza sativa"
/db_xref-"taxon:4530"
                                                                                                                                                                                                                                                                                                 ae; Oryzeae; Oryza.
to 1176)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                          for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 216.4; DB 8 pred. No. 4.8e-46; 0; Mismatches 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                          mRNA
OSMYB1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 363 g
                                                                                                                                         Tanabe, F.,
                                                                                     of five
18 (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202 t
                                                                                                       myb-related
                                                                                                                                           Toki,S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                             Washida, H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                         genes
                                                                                                          from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                533
                                                                                                            rice
                                                                                                                                             Wu,C
                                                                                                                                                                                                                                  Department
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            266
                                                                                                              seed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                            ACCESSION
VERSION
                                               REFERENCE
                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                RESULT
HVMYB2
                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                                                                                      TITLE
        TITLE
                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 274
                                   AUTHORS
                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                    486
                                                                                                                                                                                                                                                                                                                                               419
                                                                                                                                                                                                                                                                                                                                                                         426
                                                                                                                                                                                                                                                                                                                                                                                                   359
                                                                                                                                                                                                                                                                                                                                                                                                                             366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                        299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126
                                                                                                                                                                                                                                                                              12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59
                                                                                                                                                                                                                                                                                                                                 attgatccacaaactcatcgtcctct 444
                                                                                                                                                                                                                                                                                                                                                                GACAACGAGATCAAGAACTACTGGAACACGCACATCAAGCGCAAGCTCCTCGCCCGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                   CTCCACAGCCTCCTCGGCAACAAGTGGTCTCTGATCGCCGGGCAGCTGCCGGGGAGGACG
                                                                                                                                                                                                                                                                                                                 ATCGACCCGCAGACGCACCGCCCGCT 511
                                                                                                                                                                                                                                                                                                                                                                                cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCGCCCGACCTCAAGCGCGGCAACTTCACCGACGACGACGACGAGCTCATCATCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCAAGGCGGCGGCCTCCTTCGCTGCGGCAAGAGCTGCCGCCTCCGGTGGATGAACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                atgggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggaccaaagag 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGGGGAGGTCGCCGTGCTGCGAGAAGGCGCGCACACGAACAAGGGGGGCGTGGACGAAGGAG
                                                                                                                                                                               X70876
X70876.1 GI:19054
DNA-binding protein; parley.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 274;
 Rohde, W., Marocco, A., Wis
Salamini, F.
Anthocyanin biosynthesis
                                                                                                                                                                                                                                      HVMYB2
H.vulg
                                        Submitted (20-JAN-1993) W. Rohde, Max-Planck-Inst fuer Zuechtungsforschung, Carl-von-Linne-Weg 10, 5000 Koeln 2 (bases 1 to 1102)
                                                                                                                   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Hordeum.
                                                                                    Direct Submission
                                                                                                                                                                 Hordeum vulgare
                                                                                                  Rohde, w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                       ....ulgare myb2 mRNA.
                                                                                                              (bases 1 to 1102)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ø
                             Marocco, A., Wissenbach, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SSPCEAAAAAABGRLLGRRLPQQORHNEHGGAAVPRPQPRALGRADAELAAGGDAHQR
AAGLPLLPPRLPRRGGVQLSG"
357 c 355 g 211 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="BAA23337.1"
/protein_id="BAA23337.1"
/db_xref="GI:2605617"
/translation="MGRSPCCEKAHTNKGAMTKEEDQRLIAYIRAHGEGCWRSLPKAA
/translation="MGRSPCCEKAHTNKGAMTKEEDQRLIRYIRAHGEGCRFGREDKAA
GLIKRGKSCRLRWMYLTRPDLKRGNETDDEDELIIRLHSLLGNKWSLLAGGQLPGRTDN
EIKNYMWTHIKKKLLARGLDPQTHRPLLSGGDGIAASNKRHHRRRIPYPSRRRRRPRR
EIKNYMWTHIKKKLLARGLDPQTHRPLLSGGDAIOGDAIGRADAETAAGGDAHOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="Osmyb1"
126. .845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /function="transfactor"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="Osmyb1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Product="OSMYB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /t1ssue_type="seed"
126. .845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20.6%;
                                                                                                                                                                                         myb DNA binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 206.8; DB 8; Pred. No. 1.5e-43; 0; Mismatches 112;
 in barley: characterization of
                            Barzen, E.,
                                                                                                                                                                                          domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1176;
                          Kristiansen, K.
                                                     Koeln
                                                                                                                                                                                                                                              14-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                     30,
  structural
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                  485
                                                                                                                                                                                                                                                                                                                                                                                                                     425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                          ğ
밁
                     Ş
                                                  ₽
                                                                                                      B
                                                                                                                            δÕ
                                                                                                                                                       ₽
                                                                                                                                                                                  δõ
                                                                                                                                                                                                              В
                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                           ρ
                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
MEDLINE
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                      284
                                                                                                                                 299
                                                                                                                                                                                                               164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                          224
                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                   104
                                                                                                                                                                                                                                        179
                                                                                                                                                                                                                                                                                            119
                                                                                                                                                                                                                                                                                                                       44
                                                                                                                                                                                                                                                                                                                                                59
                                                                                                                                                                                                                                                                                                                                                                        274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         See
                                                                                                                                                                                                                                                                                                                                                                                                                                                        224
```

문 Ş 밁 δÃ 밁 S 문 Ş

Ş 밁 Ş 밁 Š

```
attgatccacaaactcatcgtcctctca
                                                                                                                                                                                                                    CTCCGCCCCGACCTCAAGCGCGGCAACTTCACCGACGACGAGGACGAGCTCATCATCCGC
                                                                   GACAACGAGATCAAGAACTACTGGAACACGCACATCAAGCGCAAGCTCCTCTCCCGCGGG
                                                                                         CTCCACAGCCTGCTCGGCAACAAGTGGTCTCTCATCGCCGGCCAGCTGCCGGGCAGGACG
                                                                                                                                                                   cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca
                                                                                                                                                                                                                                                                                                CCCAAGGCGGCCGGCTGCGCTGCGGCAAGAGCTGCCGCCTCCGCTGGATGAACTAC
                                                                                                                                                                                                                                                                                                                        occaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac
                                                                                                                                                                                                                                                                                                                                                                          ATGGACCCGCACACGCACCGCCCGCTCA
                                                                                                                                                                                                                                          ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                  gaagatcaacgcotcatcaactacatccgtgtccatggtgaaggctgctggggttccctc 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGGGAGGTCGCCGTGCTGCGAGAAGGAGCACCAACAACGAGGGGCGTGGACCAAGGAG 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atgggacgatcaccttgttgtagaaaggctcataccaacaaggtgcctggaccaaagag 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Myb genes from Hordeum vulgare: chimeric Myb promoter/Gus genes Plant J. 4 (3), 411-422 (1993) 94035190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and putative regulatory elements
(in) Styles, D.E., Gavazzi, G. and Racchi, M.S.
THE GENETICS OF FLAVENOIDS: 79-95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wissenbach, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Edizioni Edicopli, Milano (1988)
3 (bases 1 to 1102)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      x70876 and x70880 for related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /Codon_start=1
/product="mybHv5"
/protein_id="CAA50221.1"
/protein_id="CAA50221.1"
/db_xref="gI:19055"
/db_xref="spTrembL:qb6944"
/translation="MgrspccekeHTDKGAWTKEEDQRLIAYIRANGEGCWRSLPKAAGLLRGKSCRLRWMYLLKRGNETDDEDELLITLHSLLGKWRSLIAGQLPGRTDN
EIKNYWNTHIKRKLLSGRUDPHTHRPLTAVIDAAPTRPAQIAVPARAAPTTMFALPT
KQQQPPVPVESSDDDGSSGATSTGEPRCPDLNILDLSVGPPAADTPTSHPVGLCRHLGF
RGGEACSCRQADSAGSQGGFRYFRPLEEGQYI"
a 356 c 350 g 172 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="shoot meristem"
/clone_lib="\M\1149"
/clone="cmybHv5"
44..394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="myb DNA-binding domain"
44. 799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Hordeum vulgare"
/strain="Abyssinian 2231"
/db_xref="taxon:4513"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="myb2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="myb2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /haplotype-"diploid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Uberlacker, B., Vogt, F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "myb2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 205.6; DB 8; Pred. No. 3.2e-43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches 114;
431
                                   446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tissue-specific expression in transgenic tohans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Becker,D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Eds.);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Salamini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                        283
                                                                     403
                                                                                                                                                                                   358
                                                                                                                                                                                                                                                                                                                                      238
                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                            298
                                                                                                                                                                                                                                                                                                  223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

```
SOURCE:
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
D88618.
                                                                                                                                                                                         δô
                                                                                                                                                                                                                                                                                                                                                                     BASE COUNT
ORIGIN
                                                                                                                                                           멍
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                   ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
Š
                               밁
                                                          Š
                                                                                               밁
                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FOCUS
LOCUS
                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                          107
                                                                                                                                                            167
                                                                                                                                                                                            118
                                                               238
                                                                                               227
                                                                                                                              178
 298 gcttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaac
                                                                                                                                                                                                                                                                                      Local Similarity
nes 264; Conserv
                                                                                                                                                                                                                                                          58
                                                                                                                                                                                                                                                gatgggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggaccaaaga 117
                                                   cttgaggcctgatcttaagagaggaaaktttcactgaagaagaagatgagcttatcatcaa
                                                                                                               ccccamagctgctgggctgcttagatgtggtaagagttgcagattaagatggatmaacta
                                                                                                                                                            GGAGGACCAGCGCCTCATCGCCCACATCAACCAGCACGGCGAGGGCTGCTGGAGGTCGCT
                                                                                                                                                                           ggaagatcaacgcotcatcaactacatccgtgtccatggtgaaggctgctgctggcgttccct 177
                                                                                                                                                                                                                        GATGGGGAGGTCGCCGTGCTGCGAGAAGGCGCACACGAACAAGGGCCGCGTGGACCAAGGA 166
                                                                                               CCCCAAGGCCGCCGGGTTGCTGCGTTGCGGGAAGAGCTGCCGCCTCCGGTGGATCAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D88618.1 GI:2605618
D88618.1 GI:2605618
Osmyb2; OSMYB2.
Oryza sativa seed cDNA to mRNA
Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D88618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene 198
98036074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (28-OCT-1996) to the DDBJ/EMBL/GenBank databases. Akihiro Suzuki, National Institute of Agrobiological Resources, Department of Biotechnology, Kannondai 2-1-2, Tsukuba City 305, Japan (E-mail:hnskhrkeabr.affrc.go.jp, Tel:+81-298-38-8450,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
1 (bases 1 to 1069)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cloning and expression of five myb-related Gene 198 (1-2), 393-398 (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Suzuki, A., Suzuki, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Suzuki, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fax:+81-298-38-8397)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pakaiwa, F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Sites)
                                                                                                                                                                                                                                                                                                                                                                                    230
                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sativa mRNA
                                                                                                                                                                                                                                                                                                                                                                                     ထ
                                                                                                                                                                                                                                                                                                                                                                                                                                 /translation="MGRSPCCEKAHTNKGAWTKEEDQRLIAHINQHGEGCWRSI.PKAA
GLIRGGKGKLKWSLIAGRIPGEEDELITKJEELLGHWSLIAGRIPGETDN
GLIRGKGKKKKLLARGLDPLRTARSMPPPPSPATTUSTRILOLLARRIKRPQQLGR
RRRVPRRHRPQPVHKPAVVVVPAVFPAAAAARSRGETRRSDGELHLPPPLLGDEGEDM
                                                                                                                                                                                                                                                                                                                                                                                                                   PVLEPPRAARRRVQLRRLVGLFLLLAAAGDGELASVHIRQCIVVNSVKHREIQRFSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /protein_id="BAA23338.1"
/db_xref="GI:2605619"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Oryza sativa"
db_xref="taxon:4530"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'gene="Osmyb2"
'function="transfactor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'tissue_type="seed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   product="OSMYB2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               codon_start=1
                                                                                                                                                                                                                                                                                                     20.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Osmyb2"
                                                                                                                                                                                                                                                                                                                                                                                     O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for
                                                                                                                                                                                                                                                                                      Score 201; DB Pred. No. 5.1e 0; Mismatches
                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tanabe, F., Tok1, S., Washida, H., Wu, C.Y. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OSMYB2,
                                                                                                                                                                                                                                                                                                                                                                                    ·289 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pLN
complete cds.
                                                                                                                                                                                                                                                                                                                                                                                       175
                                                                                                                                                                                                                                                                                      DB 8; I
5.1e-42;
hes 105;
                                                                                                                                                                                                                                                                                                                                                                                       rt
                                                                                                                                                                                                                                                                                                                    Length 1069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              genes
                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-FEB-1999
                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               seed
                                                               297
                                                                                               286
                                                                                                                              237
                                                                                                                                                              226
                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
```

```
COMMENT
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
ATCM4GENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                        mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                   exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418 aattgatcc 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCCACGAGCTCCTCGGCAACAAGTGGTCGCTGATCGCCGGGAGGGCTGCCGGGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTCGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACAACGAGATCAAGAACTACTGGAACACCCACATCAAGCGCAAGCTCCTCGCCCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (17-MAR-2000) Smeekens J.C.M., Molecular Plant
Physiology, Utrecht University, Padualaan 8, 3584 CH Utrecht,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
Submitted (28-JUL-1995) G.G.M. Keultjes, University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          x90382.2 GI:7263578 myb-repeat; MYB102 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Smeekens, J.C.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Revised by [3] 3 (bases 1 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Weisbeek, F. and Smeekens, S. Identification of a light-regulated MYB transcription factor gene collection Plant Mol. Biol. 32 (5), 987-993 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Quaedvlieg, N., Dockx, J., Keultjes, G., Kock, P., Wilmering, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheop
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arabidopsis thaliana mRNA for putative transcription factor (MYB102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCM4GENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Keultjes,G.G.M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 1335)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bases 1 to 1335)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                475
                                                                                                                                                                                                                                                                                                 /gene-"MYB102"
1. .1335
                                              /translation="marspcceknglkkgpwtseedqklydyiqkhgygnwrtlpkna
GLQRCGKSCRLRWTNYLRPDIKRGRFSFEEEETIIQLHSFLGNKWSAIAARLPGRTDN
EIKNFWNTHIRKKLLKMGIDPVTHSPRLDLLDISSILASSLYNSSSHHMMSRLMMDT
             NRRHHQQHPLVNPEILKLATSLFSQNQNQNLVVDHDSRTQEKQTVYSQTGVNQYQTNQ
VFENTITQELQSSMPPFPNEARQFNNDNQNLVVDHDSRTQEKQTVYSQTGVNQYQTNQ
SSSNFYLDPSYSDQSFNFANSVLNTPSSSPSPTTLNSSYINSSSCSTEDEIESYCSNL
                                                                                                 /product="putative transcription factor"
/protein_id="CAB81661.1"
/db_xref="GI:7263579"
                                                                                                                                                                                           /gene="MYB102
                                                                                                                                                                                                                                                                                                                                                                                             /organism="Arabidopsis
/cultivar="Columbia"
/db_xref="taxon:3702"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 , 2000 this sequence version replaced gi:928927.
Location/Qualifiers
1...1335
                                                                                                                                                         /codon_start=1
                                                                                                                                                                            'note="R2R3-MYB factor family member"
                                                                                                                                                                                                              )oin(109.
                                                                                                                                                                                                                                                  /gene="MYB102"
                                                                                                                                                                                                                                                                                   'gene="MYB102"
                                                                                                                                                                                                                                                                                                                                                     'note="allele Col"
                                                                                                                                                                                                                                 number=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              to 1335)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1335 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene;
                                                                                                                                                                                                       .241,242.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transcription
                                                                                                                                                                                                                                                                                                                                        .371,372.
                                                                                                                                                                                                                .371,372.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                an Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of Utrecht,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The
```

```
JOURNAL
MEDLINE
REFERENCE
AUTHORS
TITLE
                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                    DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                      RESULT
AMMIXTA
 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                            Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                             TITLE
                                                                                                                                                                                   ORGANISM
                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                exor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                               337
                                                                                                                                                                                                                                                                                                                      447
                                                                                                                                                                                                                                                                                                                                              397
                                                                                                                                                                                                                                                                                                                                                                       387
                                                                                                                                                                                                                                                                                                                                                                                                                      327
                                                                                                                                                                                                                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37
                                                                                                                                                                                                                                                                                                                                   aagaaagcttataagcagaggaattgatccacaaactcatcgtcctc 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAAGGGCCTTGGACATCTGAAGAAGACCAGAAGCTTGTTGACTATATCCAGAAACATGG
                                                                                                                                                                                                                                                                                                                                                                                 GGAAGAAGAAACCATTATTCAGCTTCATAGCTTCTTAGGAAACAAGTGGTCTGCGATTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                   TAGGTTAAGGTGGACTAATTATCTCCGACCAGATATAAAGCGAGGAAGGTTCTCTTTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               atttgatttgattttgtaactgatgggacgatcaccttgttgtgaaaaggctcataccaa 96
                                                                                                                                                                                                                                                                                                                      AAAGAAGCTACTTAGAATGGGGATTGATCCAGTGACTCACAGTCCAC 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cagattaagatggataaactacttgaggcctgatcttaagagaggaaatttcactgaaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    caaaggtgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccatgg 156
                                                                                                                                                                                                                                                                                                                                                                     GGCGCGTTTACCAGGAAGAACAGATAATGAGATCAAGAACTTTTGGAACACTCATATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTTTTTTTCTGATAAACAATCAATGGCAAGGTCACCTTGTTGCGAGAAGAACGGACTCAA 146
                                                                                Noda,K., Glover,B.J., Linstead,P. and Martin,C. Flower colour intensity depends on specialized cell shape controlled by a Myb-related transcription factor Nature 369 (6482), 661-664 (1994)
                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids I; Lamiales; Veronicaceae; Antirrhinum.
                                                                                                                                                                                                                      X79108
X79108.1 GI:485866
           Submitted (09-MAY-1994) C. Martin, Lane, Norwich NR4 7UH, UK
                                                                                                                                                                                   Antirrhinum majus
                                                                                                                                                                                                         myb-related gene.
                                                                                                                                                                                                                                              A.majus mixta mRNA.
                                                                                                                                                                                                                                                          AMMIXTA
                                     Direct Submission
                                                Martin,C
                                                                                                                                  (bases 1 to 1118)
                                                          (bases 1 to 1118)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /number=2
301. 453
/note="myb-repeat 2
372. 1335
/gene="MYB102"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /number=3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="myb-repeat
242. .371
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="MYB102"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19.3%;
                                                                                                                                                                                                                                                           1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                          đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 194.2; DB 8;
Pred. No. 3.1e-40;
0; Mismatches 133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            226 g
                                                                                                                                                                                                                                                          mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               411
                       John
                       Innes
                                                                                                                                                                                                                                                          PLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                       Institute, Colney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1335;
                                                                                                                                                                                                                                                          02-SEP-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     266
                                                                                                                                                                                                                                                                                                                                                                                              396
                                                                                                                                                                                                                                                                                                                                                                                                                     386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                     Search co
                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                     ρ
                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                 372
                                                                                                                                                                                                                                                          419
                                                                                                                                                                                                                                                                                 312
                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                                                                                                252
                                                                                                                                                                                                                                                                                                                                                         299
                                                                                                                                                                                                                                                                                                                                                                                  192
                                                                                                                                                                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                                                                                                                                                132
                                                                                                                                                                                                                                                                                                                                                                                                                                                         179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        119
                                                                                                                                                                     ne: 5887 sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                266;
```

23,

2002,

20:20:39

Ş 밁 δÃ 밁 Ş 밁 Š 밁 8 ₽ Ş ₽

```
ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             attgatccacaaactcatcgtcctctcaatcaaa 452
                                                                                         GACAATGAGATCAAGAACTACTGGAACACTCATCTAAAGAAGCGTTTAACAAGAATGGGA
                                                                                                                 CTTCATGCTCTTCTTGGAAACAGGTGGTCAGCAATAGCTAGTCACTTGCCAAAGAGAACT
                                                                                                                                                                                                                                                                         TTGAGGCCTGATATTAAGAGAGGACCCTTCAGCTTACAAGAACAACCATCATCAA
                                                                                                                                                                                                                                                                                                                                                                                            cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAGATCAAAAGCTGCTGGCTTACATTGAAGAACATGGTCATGGAAGCTGGCGTTCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       atgggacgatcaccttgttgtgaaaaggctcataccaacaaaggtgcctggaccaaagag
ATTGATCCAGTGACCCATAAGCCCCACACTCATA
                                                                                                                                                                                                                        cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca
                                                                                                                                                                                                                                                                                                                                                                  CCACTTAAAGCTGGGCTGCAGAGATGTGGAAAAAGCTGCAGATTAAGGTGGGCAAATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /protein_id="CAA55725.1"
/db_xref="gi:485867"
/db_xref="gi:485867"
/db_xref="gi:485867"
/db_xref="gi:485867"
/db_xref="green:485867"
/db_xref="green:48586739"
/translation="myrspecdkygykkgpwtydedokllayieehghgswrshlkaftranglokythkphynnildhgokknyaknuniiaomeen.
Elknymwyhlkkkhlymaglopythkphynnildhgokknyaknuniiaomeen.
Elknymwyhlkkkhlymaglopythkphynnildhgokknyaknuniisaomeen.
Elknymwyhlkkkhlymaglopythkphyndolahyhdasaskulknyakaftny
Sarpdnyntyddyfhenwskythyakssskmdspdylynasssykmy"
LPSNSDNYVGYFEENWSSYLNNYASSSSMDSPDYLYNASSSYKMY"

210 c 255 g 294 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone="15"
12. .977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:4151"
/clone_lib="lambda gt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="mixta"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="mixta"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 189.2; DB 8
Pred. No. 6.3e-39;
0; Mismatches 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gt10"
405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                358
                                                                                                                                                                                                                                                                                                                         298
                                                                                                                                                                                                                                                                                                                                                                                                                    238
                                                                                                                                                                                                                                                                                                                                                                       191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  131
                                                                                                                                                                                                                                                                             251
```

0;

Ş

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         on:
                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
1006 \ 100 \ 0
263 \ 8 \ 26 \ 2
263 \ 8 \ 26 \ 2
263 \ 8 \ 26 \ 2
263 \ 8 \ 26 \ 2
263 \ 8 \ 26 \ 0
261 \ 2 \ 26 \ 0
261 \ 2 \ 26 \ 0
259 \ 8 \ 25 \ 8
259 \ 8 \ 24 \ 7
247 \ 8 \ 24 \ 6
                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                            Match
                                                                                                                                                                                                                                                                                                 Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     January 23, 2002, 19:27:32; Search time 168.02 Seconds (without alignments) 5133.134 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-453-387A-1
1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N_Geneseq_1101:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    930621 seqs, 428662619 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   taacaccgttattcttctc.....aatgcttaattattaaaaa 1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /SIDS8/gcgdata/geneseq/geneseqn/NA1984.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/NA1985.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/NA1986.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /SIDS8/gcgdata/geneseq/geneseqn/NA1980.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/NA1981.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /SIDS8/gcgdata/geneseq/geneseqn/NA1988.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIDS8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'SIDS8/gcgdata/geneseq/geneseqn/NA1987.DAT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS8/gcgdata/geneseq/geneseqn/Na1992.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/Na1993.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/Na1994.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/Na1995.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /SIDS8/gcgdata/geneseq/geneseqn/NA1990.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/NA1991.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/NA1992.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /SIDS8/gcgdata/geneseq/geneseqn/NA2UUU.DAT:*
/SIDS8/gcgdata/geneseq/geneseqn/NA2001.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /SIDSB/gcgdata/geneseq/geneseqn/NA1999.DAT:*
/SIDSB/gcgdata/geneseq/geneseqn/NA2000.DAT:*
                                                                                                                                                                                                                                                                         Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /SIDS8/gcgdata/geneseq/geneseqn/NA1997.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'SIDS8/gcgdata/geneseq/geneseqn/NA1998.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIDS8/gcgdata/geneseq/geneseqn/NA1996.DAT:*
  639
1087
1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gcgdata/geneseq/geneseqn/NA1982.DAT:*
/gcgdata/geneseq/geneseqn/NA1983.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gcgdata/geneseq/geneseqn/NA1989.DAT:*
                                                                                                                                                                                                                                                                              ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 summaries
  AAD06456
AAC43611
                                            AAC57347
AAC57075
AAC57365
AAC42662
AAC51202
                                                                                                                                                                                                        AAF90594
AAF80412
                                                                                                                                                                                     AAC49989
                                                                                                                                                           AAC34284
                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1861242
Pinus radiata tran
Pinus radiata tran
Pinus radiata tran
Arabidopsis thalia
Arabidopsis thalia
Arabidopsis thalia
                                                                                                                                                                                                                                                                         Description
                                                                                                                                                        Nucleotide sequenc
Arabidopsis thalia
Arabidopsis thalia
                                                                                                                                                                                                        Cotton transcripti
Nucleotide sequenc
```

177 1	80.2 1	80.8 1	81.6 18.	.2 18.	83.2 18.	84 18.	86 18.	.6 18.	87.2 18.	188 18.	9.4 18.	2.2 19.	2.6 19.	4.2 19.	4.2 19.	8.8 19.	.2 20.	1.4 20.	03 20.	03 20.	.8 20.	12.8 21.	217 21.	20.6 21.	.6 21.	21.6 22.	21.6 22.	223 22.	30.2 22.	33.8 23.	235.2 23.4	45.2 24.	45.2 2
59	61	72	25.	92	92	64	60	84	31	ω	26	38	73	32	29	38	69	85	73	73	61	20	51	25	25	63	60	51	86	39	918 22	50	31
AAC43																				1 AAC57242								AAC	AAC572	AAC4	AAD	AAC573	AAC569
Arabidopsis thalia	Arabidopsis thalia	iat	ğ	lat	œ	Eucalyptus grandis	ate	Arabidopsis thalia	s radiat	Pinus radiata tran	2ea mays DNA fragm	Zea mays DNA fragm	Eucalyptus grandis	Arabidopsis thalia	Ġ	radiata t	а	radiata t	Pinus radiata tran	Pinus radiata tran	rad	radiat	1scr1	•••	Arabidopsis thalia	Eucalyptus grandis	Eucalyptus grandis	Pinus radiata tran	Eucalyptus grandis	Arabidopsis thalia	19	radiata	Pinus radiata tran

## ALIGNMENTS

```
RESULT
AAF90594
07-JUN-2001.
                                                                                                                                                                      Gossypium hirsutum cv. Acala SJ-2.
                                                                                                                                                                                                                 Cotton transcription factor GhMYB 1 cDNA
                                                                                                                                                                                                                                   22-AUG-2001
                                                                                                                                                                                                                                                    AAF90594;
                                                                                                                                                                                                                                                                    AAF90594 standard; cDNA to
                       WO200140250-A1
                                                                  repeat_region
                                                                                                    protein_bind
                                                                                                                                                                                       transgenic plant; ss.
                                                                                                                                                                                                GhMYB 1; R2R3-MYB; transcription factor; cotton;
                                                                                                                                                                                                                                                                                    L
                                                                                                                                                                                                                                 (first entry)
                                                            /note= "putative"

107..133
                                                                                                    92..403
                                                                                                          /transl_except- "(pos:191..193, aa:Xaa)
/note- "Xaa is absent in protein sequence
given in the specification (AAB82481)"
                                                                                                                                                      Location/Qualifiers
                                         /note= "MYB DNA-binding domain repeat signature
   putative"
                                                                                           /*tag-
                                                                                                                                      /*tag=
                                                                                           ъ
                                                                                                                                                                                                                                                                    mRNA; 1006
```

```
cc transcription factor GhMYB 1 (see AABB2481). The CDNA was isolated CC from a Gossypium hirsutum cv. Acala SJ-2 3-day pre-anthesis ovule CC cDNA library using a PCR-based strategy and Arabidopsis thaliana CC Glabrous1 (AtMYBG/1) as a heterologous hybridisation probe. 6 MYB CC genes, designated as GhMYB 1 to GhMYB 6, were identified. The CC GhMYB 1, GhMYB 2 and GhMYB 3 genes are relatively abundant and CC expressed in all tissues examined; transcripts of the other CC 3 genes are less abundant and exhibit tissue-specific patterns of CC expression. A claimed method of modulating transcription in a CC plant involves introducing into the plant a recombinant expression CC cassette comprising a promoter operably linked to a heterologous CC GhMYB 6. The plant is especially corton, and the promoter directs CC expression in cotton fibres or roots. Valuable phenotypes can CC candity, alteration of root architecture, and enhanced growth. CC The GhMYB1 gene is particularly useful for increasing levels of CC gene expression in plant fibres to increase fibre yield, length, SC strength and fineness.
                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 1006; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 3; Page 40-41; 50pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Modulating transcription in plants for improving cotton fiber quality comprises introducing a recombinant expression cassette comprising a promoter operably linked to a sequence encoding a MYB polypeptide -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (REGC ) UNIV
                                                                                                                            gaggcctgatcttaagagagggaaatttcactgaagaagaagatgagcttatcatcaagct
                                                                                                                                                                              caaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactactt
                                                                                                                                                                                                                                   agatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgttcccttccc 180
                                                                                                                                                                                                                                                                                        2001-397938/42.
)B; AAB82481.
                       caaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactactt
                                                                                                                                                                                                                      gggacgātcaccttgttgtgaaaaggctcataccaacaaaggtgcctggaccaaagagga 120
                                                                                                                                                                                                                                                                                                                              tcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaacaga
                                                                         tcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaacaga
                                                                                                                gaggcctgatcttaagagggaaatttcactgaagaagaagatgagcttatcatcaagct
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence is that on factor GhMYB 1
                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US32731
                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0453387
                                                                                                                                                                                                                                                                                                                                                                                                                                                   323
                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                                                                                                                                                                 A.
                                                                                                                                                                                                                                                                                                                                                                                              .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of cDNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ü
                                                                                                                                                                                                                                                                                                                                                                                Score 1006;
Pred. No. 5.4
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                   204
                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                   270
                                                                                                                                                                                                                                                                                                                                                                                              DB 22;
5.4e-271;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Τ,
                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                 other;
                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                .
0,
                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                              60
                                                              360
                                                                                     360
                                                                                                                300
                                                                                                                                          300
                                                                                                                                                                   240
                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
DXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
        12-OCT-1999;
08-NOV-1999;
17-NOV-1999;
17-APR-2000;
22-AUG-2000;
                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                             Transcription plant developm
                                                                                                                                                                                                                                                                                                    Nucleotide sequence of a plant transcription factor
                                                                                                                                                                                                                                                                                                                                                                                  AAF80412 standard;
                                                                                                                 19-APR-2001
                                                                                                                                                                                                                                      Arabidopsis
                                                                                                                                                                                                                                                                                                                                29-JUN-2001
                                                                                       11-OCT-2000;
                                                                                                                                            WO200126459-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                           N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gcacaagaagcagcaatacggtccgagcaatgggcaagacataaatttggagctgtcgat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           agaacccaactgtacagccagcagtggcatgactacagatgaagagcaacaagaacagct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ttcmamatggcttctmatagttmattgtagaccccttggmattcatmaggggtcmatctttttcttct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tttgtgtttggcaattaggttttggaacaagtgaaatttgtaggaactgtcaaaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           aaaggtagataacaacatttccagtttcttgaacaagctatggtggctaaggcggtatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tgatccacaaactcatcgtcctctcaatcaaacggccaataccaacacagtcacagcccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ttcaaatggcttctatagttattgtagacccttggattcatagggtcatctttttcttct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tttgtgttggcaattaggttttggaacaagtgaaatttgtaggaactgtcaaaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             aaaggtagataacaacaatttccagtttcttgaacaagctatggtggctaaggcggtatg
                                                                                                                                                                                                                                                             development;
                                                                                                                                                                                                                                      thaliana.
         99US-0159464.
99US-0164132.
99US-0166228.
2000US-0197899.
2000US-0227439.
                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                       2000WO-US28141
                                                                                                                                                                                                                                                                           factor;
                                                                                                                                                                  /product=
                                                                                                                                                                                             Location/Qualifiers 15...725
                                                                                                                                                                                 /=tag=
                                                                                                                                                                                                                                                                                                                                                                                  cDNA; 764
                                                                                                                                                                                                                                                             plant
                                                                                                                                                                                                                                                            flowering time;
ant physiology;
                                                                                                                                                                    "transcription
                                                                                                                                                                                                                                                               flowering;
                                                                                                                                                                                                                                                                           transgenic
                                                                                                                                                                                                                                                                           plant;
                                                                                                                                                                                                                                                                                                     G208
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1006
                                                                                                                                                                                                                                                                              vernalisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
```

Ş 밁 Ş 8 Ş

121

61 61 ٠, \_

Ş 밁 δÃ 밁

밁

밁 Ş

361 361 301 301 241 241 181 181 121 S

Séquence

밁

```
RESULT
AAC49989
ID AAC4
                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 313
                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence encodes a plant transcription factor protein which modifies the flowering time of a plant. The polynucleotide sequence is used to produce transgenic plants which have a modified flowering time or a modified vernalisation requirement. The polynucleotides and polypeptides are useful for modifying plant development, physiology or biochemistry such that the modified plants have a trait advantage over wild type plants. In particular they are useful for accelerating, delaying or preventing flowering. The polynucleotides are also useful as nucleic acid probes and primers. They may be used to identify proteins that can modify the activity of the transcription factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New transgenic plant comprises a recombinant polynucleotide encoding plant transcription factor polypeptide and has a modified flowering time or vernalization requirement -
AAC49989 standard; DNA; 868 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 7; Page 104-105; 108pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ratcliffe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KEDD/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MEND-)
(RATC/)
(HEAR/)
(SAMA/)
(CREE/)
                                                                                                                                                                                                                                                                                                                                                                                    Sequence 764 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (RIEC/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REUB/)
                                                  375
                                                                    419
                                                                                        315
                                                                                                          359
                                                                                                                              255
                                                                                                                                                   299
                                                                                                                                                                       195
                                                                                                                                                                                                              135
                                                                                                                                                                                                                                  179
                                                                                                                                                                                                                                                                        119
                                                                                                                                                                                                                                                    75
                                                                                                                                                                                                                                                                                            15
                                                                                                                                                                                                                                                                                                               59
                                                                                                                                                                                                                                                                                                                                                                                                       transcription
                                                                                                                                                                                                                                                 2001-266398/27.
                                              cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca
                                                                                                                                                                                ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                      cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac
                                                                                      gataacgaaataaagaattattggaacactcatattaagaggaagcttcttagtcacggt
                                                                                                 ctccatagcttactcggtaacaaatggtcattgatagctggaagattaccaggaagaaca
                                                                                                                                                                      cttcgtcctgatcttaaacgtggtaattttactgatgatgaagatcaaatcatcatcaaa
                                                                                                                                                                                                             HEARD J.
SAMAHA R.
CREELMAN R.
KEDDIE J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ļ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ) KEDDIE J.
) JIANG C.
) REUBER L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB67842.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RIECHMANN J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MENDEL BIOTECHNOLOGY
RATCLIFFE O.
                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ), Heard J,
Riechmann J
                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                     228
                                                                                                                                                                                                                                                                                                                                                                                                        factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۲
                                                                                                                                                                                                                                                                                                                                           26.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JL;
                                                                                                                                                                                                                                                                                                                                                                                    ?
                                                                                                                                                                                                                                                                                                                                                                                   140.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Samaha
                                                                                                                                                                                                                                                                                                                                                                                    Ċ
                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                           Score 263.8; DB
Pred. No. 8e-64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 æ,
                                                                                                                                                                                                                                                                                                                                                                                     177
                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Creelman R,
                                                                                                                                                                                                                                                                                                                                                                                   <u>و</u>;
                                                                                                                                                                                                                                                                                                                                                                                    219
                                                                     453
                                                                                                                                                                                                                                                                                                                                                                                     Ή.
                                                                                                                                                                                                                                                                                                                                                       DB 22;
                                                                                                                                                                                                                                                                                                                                   82;
                                                                                                                                                                                                                                                                                                                                                                                     0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Keddie J,
                                                                                                                                                                                                                                                                                                                                   Indels .
                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jiang
                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ö
                                                                                                          418
                                                                                                                                                                                                                                                   134
                                                                                                                                                                                                              194
                                                                                                                                                                                                                                 238
                                                                                                                              314
                                                                                                                                                                     254
                                                                                                                                                                                          298
                                                                                                                                                                                                                                                                                                                                   0
  Hybridisation assay; genetic mapping; protein identification; signal transdumetabolic pathway; promoter; terminat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arabidopsis thaliana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAC49989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-FEB-2000;
                                                                                                                                                                       03-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-FEB-1999;
                                                                                                                                                                                                                                                      19-MAY-1999
                                                                                                                                                                                                                                                                18-may-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-MAR-1999
                                                                                                                      LO-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                      L9-APR-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  thaliana DNA fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000EP-0301439
99US-0139457.
99US-0139458.
99US-0139459.
99US-0139460.
99US-0139461.
                                                                                                                                                                                                                                                                                                                           99US-
                                                                                      139452
139453
                                                                                                                               13809
13854
                                                                                                                                                                       13678
13722
137521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          termination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pping; gene expression
transduction pathway;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63187.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contro
```

Š

Š 밁 Ş 밁

밁 S В Ş

밁

Š

밁 Š

밁

```
27-JUL-1999;
27-JUL-1999;
28-JUL-1999;
02-AUG-1999;
02-AUG-1999;
02-AUG-1999;
03-AUG-1999;
                                                03-AUG
04-AUG
04-AUG
05-AUG
05-AUG
05-AUG
06-AUG
06-AUG
09-AUG
11-AUG
11-AUG
11-AUG
13-AUG
13-AUG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JUN-1999;
                                                                                                                                                   4-AUG-1999;
4-AUG-1999;
5-AUG-1999;
                                                                                                                                    AUG-1999;
       99US-0139462.
99US-0139763.
99US-0139763.
99US-0139817.
99US-0140353.
99US-0140353.
99US-0140823.
99US-0141842.
99US-0142154.
99US-0142154.
99US-0142972.
99US-0144325.
99US-0144333.
99US-0145086.
99US-0145086.
99US-0145086.
99US-0147203.
99US-0147203.
99US-0147203.
99US-0147203.
99US-0147303.
99US-0149368.
99US-0149368.
99US-0149368.
99US-0149322.
99US-0149323.
5-0149929
5-0149902
5-0149930
                                                                                                                                                                     8
                                                 δÃ
                                                                                                   밁
                                                                                                                  Ş
                δÃ
                                  밁
                                                                  뮰
                                                                                                                                   Query Match 26.2%;
Best Local Similarity 79.2%;
Matches 313; Conservative
                                                                                                                                                                                            26-OCT-1999;
26-OCT-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                               08-OCT-1999
12-OCT-1999
13-OCT-1999
13-OCT-1999
13-OCT-1999
13-OCT-1999
14-OCT-1999
                                                                                                                                                                    28-OCT-1999;
28-OCT-1999;
29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-SEP-1999
29-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L5-SEP-1999
                 239
                                                                                   119
                                                                   112
                                                                                                   52
                                                                                                                   59
                                                                                                                                                                                                                                                                                                                                                                                                                                   -OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                           -0CT-1999
                               gaagatcaacgectcatcaactacatccgtgtccatggtgaaggctgctggcggttccctc
                                                                                                 ttgaggcctgatcttaagagaggaaatttcactgaagaagaagaagatgagcttatcatcaag
                                                                   gaagatcaacgtotogtagattatatccgtaatcacggtgaaggttgttgtggcgttctctt
cttcgtcctgatcttaaacgtggtaattttactgatgatgaagatcaaatcatcaaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;-1999;
                                                                                                                                                                    99US-0150566
99US-0151065
99US-0151065
99US-0151065
99US-0151080
99US-0151303
99US-0154018
99US-0154018
99US-0154018
99US-0154018
99US-0155458
99US-0155458
99US-0155458
99US-0155458
99US-0155458
99US-0155458
99US-0155458
99US-0155458
99US-0159293
99US-0159330
99US-0160761
99US-0160980
99US-0161404
99US-0161361
99US-0161361
99US-0161361
99US-0161361
                                                                                                                                   score 263.8; Pred. No. 8.5e 0; Mismatches
                                                                                                                                ; DB 21,
8.5e-64;
82;
                                                                                                                                      Indels
                                                                                                                                                     Length
                                                                                                                                                      868;
                                                                                                                                      0,
                                                                                                                                     Gaps
                                   231
                                                    238
                                                                     171
                                                                                    178
                                                                                                    111
```

	Q D Q D XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	D Qy
	Qy 359 gataatgagataaag 	
	### Transpace   Tr	cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca 
	ccaaaagcagagga 	tgctggaagattaccaggaagaaca 
	411	358 351
	· · · · · · · · · · · · · · · · · · ·	
	י טיטיטיטיטיטיטיטיטיטיטיטיטיטיטיטיטיטיט	P R R R R R R R R R R R
٠.	14-JUN-1999 16-JUN-1999 17-JUN-1999 18-JUN-1999 18-JUN	666 666 666
	9908 0139452 9908 0139453 9908 0139454 9908 0139454 9908 0139456 9908 0139456 9908 0139456 9908 0139456 9908 0139461 9908 0139461 9908 0139461 9908 0139461 9908 0139461 9908 0139462 9908 0139463 9908 0139463 9908 0139463 9908 0139463 9908 0140853 9908 0140853 9908 0140853 9908 0144333 9908 0144333	010-506 010-506 010-506 010-506 010-506

```
09-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    966
                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0147303.
99US-0147416.
99US-0147493.
                                                                                                                                                                    990S-0158369.
990S-0159293.
990S-0159294.
990S-0159295.
990S-0159329.
990S-0159330.
990S-0159331.
                                                                                                                                                                                                                                                                               99US-0151438.
99US-0151390.
99US-0153070.
99US-0153070.
99US-0154018.
99US-0154039.
99US-0154779.
99US-0155139.
                                                                                                                                                                                                                   99US-0157753.
99US-0157865.
99US-0158029.
99US-0158232.
                                                                                                                                                                                                                                               99US-0155659.
99US-0156458.
99US-0156596.
99US-0157117.
                                                                                                                                         990S-0159584.
990S-0160741.
                                                                                                                            99US-0160768
                                                                                                                                    99US-0160767
                                                                 0161406
                                                                                                                0160814
                                                                                                   .60980
RESULT AACC57 ID AACC57 ID AACC57 ID AACC5 XX XX Plan DE Pinu XXX Plan KW Poppl KW Dasis KW Type XXX Plan COS Pinu WO20 PW WPI WO20 WXX WPI PW WYX CC The
                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                179
                                                                                                                                                                                                                                                                                                                                                                                                                                              114
                                                                                                                                                                                                                                                                                                                                                                                                                                                           119
                                                                                                                                                                                                                                                                                                                                                                                                                  174
                                                                                                                                                                                                                                                                                                                                 3,54
                                                                                                                                                                                                                                                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                             294
                                                                                                                                                                                                                                                                                                                                                                          299
                                                                                                                                                                                                                                                                                                                                                                                        234
                                                                                                                                                                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59
```

Query Match Best Local Similarity

26 79

Score 263.8; DB 21; Pred. No. 8.5e-64;

Length

871;

The

present invention relates to

novel plant transcription

factors

```
plant; transcription factor; gene expression; eucalyptus; pine; poplar; sweetgum; teak; mahogany; bZIP; G-box binding factor; basic helix-loop-helix zipper; homeotic; homeodomain; homeobox; homeodomain zipper; LIM domain; AP2; EREBs; zinc finger domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pinus radiata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAC57347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC57347
                                                                                                                                                           (GENE-)
                                                                                                                                                                                                                                                                                                                                     Pinus
                                      New isolated polynucleotide encoding a plant transcription factor for producing a plant e.g. a woody plant, preferably eucalyptus or pine, having modified gene expression or modified activity of a polypeptide
                                                                                                                                                                                                     11-MAR-1999;
18-AUG-1999;
                                                                                                                                                                                                                                                                                                        WO200053724-A2
                                                                                                                                                                                                                                                                                                                                                               type. 2
Claim 1; Page 653; 747pp; English
                                                                                                 WPI; 2000-579369/54.
                                                                                                                                 Wood M,
                                                                                                                                                                                                                                                09-MAR-2000;
                                                                                                                                                                                                                                                                             14-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   414 attgatccacaaactcatcgtcagattaacgaatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   419 attgatccacaaactcatcgtcctctcaatcaaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atgggacgatcaccttgttgtgaaaaggctcataccaacaaaggtgcctggaccaaagag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atgggaagateteettgttgtgaaaaageteaeacaaacaaaggagettggaetaaagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gataacgaaataaagaattattggaacactcatattaagaggaagcttcttagtcacggt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ctccatagcttactcggtaacaaatggtcattgatagctggaagattaccaggaagaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   313;
                                                                                                                                                                                                                                                                                                                                     radiata.
                                                                                                                                                                                                                                                                                                                                                                  Cys2H1s2;
                                                                                                                                                           GENESIS RES & DEV CORP LTD. FLETCHER CHALLENGE FORESTS LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                               McGrath A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                2000WO-US06112
                                                                                                                                                                                                                                                                                                                                                                                                                                                          transcription
                                                                                                                                                                                                       99US-0266513.
99US-0149485.
                                                                                                                                                                                                                                                                                                                                                                   CCAAT box
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                 Shenk MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                          factor DNA sequence #702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                  Glenn
                                                                                                                                 ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                   MADS;
                                                                                                                                                                                                                                                                                                                                                                                                                                acacia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
RESULT
AAC5702
ID AAC5
XX AAC5
XX AAC5
XX AAC5
XX Plnu
XX Plan
KW Plan
KW Plan
KW boel
KW boel
KW boel
KW boel
KW boel
KW boel
XX type
XX Plnu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 317; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eucalyptus grandis or Pinus radiata. The present sequence is the sequence for one such transcription factor. The transcription of the used to produce a plant having modified gene expression such woody plant e.g. a eucalyptus, pine, acacia, poplar, sweetgum, mahogany species or to modify the activity of a polypeptide in The transcription factors of the present invention are members following families of regulatory proteins: bZIP, bZIP family of binding factors, basic helix-loop-helix zipper, LIM dom homeotic/homeodomain/homeobox/MADS, homeodomain zipper, LIM dom homeotic/homeodomain/homeobox/MADS, homeodomain zipper, LIM dom homeotic/homeodomain/homeobox/MADS, homeodomain zipper, LIM dom
                                                                                                                                                                                                                                    homeodomain zipper;
type 2 Cys2His2; CC
                                                                                                                                                                                                                                                                                   Plant; transcription factor; gene expression; eucalyptus; poplar; sweetgum; teak; mahogany; bZIP; G-box binding fact basic helix-loop-helix zipper; homeotic; homeodomain; homeotic
                                                                                                                                                                                                                                                                                                                                    Plant; transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                     25-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC57075
                                                 09-MAR-2000;
                                                                                                                                                                                            Pinus radiata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gaggaattgatccacaaactcatcgtcctctcaatcaaacggccaatacc 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       actacttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ccctccccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  aacaagaagacgaccgccttatcgctcacattcgagcccacggcgaagggggctggcgtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            aactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggacca 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ggacggacaacgagataaagaactactggaacacacacatcaaaaagaaaattgctgagca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      actacctgcgtcccgatctgaagcgtggaagcttcaccgaagaagaagacgagctcatca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cgcttcccaaggccgcagggctgctgagatgcggcaagagctgcagactgcgatggataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tcaaactccactccttcgttggcaacaagtggtctttaattgcagggagattgcccggac
                                                                                                                                                                                                                                                                                                                                                                                      radiata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            omeodomain/homeobox/MADS, homeodomain zipper, zinc finger domains of type 2 Cys2His2, CCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВP;
                                                    2000WO-US06112
                                                                                                                                                                                                                                                                                                                                                                                   transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                                                                                                 LIM domain; AP2;
                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.0%;
77.3%;
                                                                                                                                                                                                                                                                                                                                       factor;
                                                                                                                                                                                                                                         Xod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 134 C;
                                                                                                                                                                                                                                         element;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                 factor DNA sequence #521.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                No. 3.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ი</u>
                                                                                                                                                                                                                                                               EREBs; zinc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.4e-63;
nes 93;
                                                                                                                                                                                                                                         88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAAT
                                                                                                                                                                                                                                                                                     j factor;
homeobox;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            family of G-box
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     members from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          auch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             domain,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         elements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       factor may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      teak,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                        MADS;
                                                                                                                                                                                                                                                                                                                                       acacia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or
F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
```

11-MAR-1999;

99US-0266513

25-JAN-2001

(first entry)

```
RESULT
AAC57365
ID AAC5
XX
AC AAC5
XX
AC AAC5
XX
AC XX
XX
AX
XX
                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                               Š
                                                                                                                                                                         밁
                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 317; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to novel plant transcription factors from Eucalyptus grandis or Pinus radiata. The present sequence is the coding sequence for one such transcription factor. The transcription factor may be used to produce a plant having modified gene expression such as a woody plant e.g. a eucalyptus, pine, acacia, poplar, sweetgum, teak, or mahogany species or to modify the activity of a polypeptide in a plant. The transcription factors of the present invention are members from the following families of regulatory proteins: bZIP, bZIP family of G-box binding factors, basic helix-loop-helix zipper, LIM domain, AP2 and ERBS, zinc finger domains of type 2 Cys2Hs2, CCAAT box elements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GENE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated polynucleotide encoding a plant transcription producing a plant e.g. a woody plant, preferably eucalyptus having modified gene expression or modified activity of a polynum \alpha
                                                             AAC57365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-1999;
                                                                                                                        414
                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                     114
                                                                                                                                                                         340
                                                                                                                                                                                                  354
                                                                                                                                                                                                                           280
                                                                                                                                                                                                                                                   294
                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                   234
                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                     174
                                                                                                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                                        gaggaattgatccacaaactcatcgtcctctcaatcaaacggccaatacc
                                                                                                                                                                       actacctgcgtcccgatctgaagcgtggaagcttcaccgaagaagaagacgagctcatca
                                                                                                                                                                                                                                                                                       actacttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatca
                                                                                                                                                                                                                                                                                                                            ctcttcccaaggccgcagggctgctgagatgcggcaagagctgcagactgcgatggataa
                                                                                                                                                                                                                                                                                                                                        ccctccccaaagctgctgggctgcttagatgtgggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                                                                                                                                                                            aacaagaagatgaccgccttatcgctcacattcgagcccacggcgaagggggctggcgtt
                                                                                                                                                                                                                                                                                                                                                                                         aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgtt
                                                                                                                                                                                                                                                                                                                                                                                                                             aaaagatggggagatctccgtgctgtgagaaygctcatactaacaaaggggcctggacta
                                                                                                                                                                                                                        tcaaactccactccttcgttggcaacaagtggtctttaattgcagggagattgcccggac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENESIS RES & DEV CORP LTD. FLETCHER CHALLENGE FORESTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McGrath
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          вÞ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    580;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0149485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P
                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   747pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          147
                                                             1576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 261.2; DB 2
Pred. No. 3.6e-63;
0; Mismatches 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Glenn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>ა</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             plant transcription factors from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for
                                                                                                                                                                                                                                                                                                                                                                                                                                                       113
                                                                                                                                                                                                  413
                                                                                                                                                                                                                                                                                                                                                      233
                                                                                                                                                                                                                                                                                                                                                                               159
                                                                                                                                                                                                                                                                                                                                                                                                     173
                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                    353
                                                                                                                                                                                                                                                                                                                             219
                                                                                                                                                                           399
                                                                                                                                                                                                                           339
                                                                                                                                                                                                                                                                             279
                                                                                                                                                                                                                                                                                                    293
```

774 BP.

> 0 444 463

> > 394

SEQ Ħ ŏ:

36392

control;

```
Query Match
Best Local
                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                          woody plant e.g. a eucalyptus, pine, acacia, poplar, sweetgum, teak, or mahogany species or to modify the activity of a polypeptide in a plant. The transcription factors of the present invention are members from the following families of regulatory proteins: bZIP, bZIP family of G-box binding factors, basic helix-loop-helix tipper, homeodomain/homeobox/MADS, homeodomain zipper, LIM domain, APZ and EREBs, zinc finger domains of type 2 Cys2His2, CCAAT box elements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-MAR-1999;
18-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-MAR-2000; 2000WO-US06112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plant; transcription factor; gene expression; eucalyptus; pine; acaci poplar; sweetgum; teak; mahogany; bZIF; G-box binding factor; basic helix-loop-helix zipper; homeotic; homeodmain; homeobox; MADS; homeodomain zipper; LIM domain; AP2; EREBs; zinc finger domain; type 2 Cys2His2; CCAAT box element; MYB; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to novel plant transcription factors from Eucalyptus grandis or Pinus radiata. The present sequence is the coding sequence for one such transcription factor. The transcription factor may be used to produce a plant having modified gene expression such as a
                                                                                                                                                                                                                                                                                                                                                                    Sequence 1576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          producing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wood M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GENE-) GENESIS RES & DEV CORP LTD (FLET-) FLETCHER CHALLENGE FORESTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200053724-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pinus radiata.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pinus radiata transcription factor DNA sequence #719.
                                                                                                                                                                                                              114
                                                                                                                              155
                                                                                                                                                         174
                                                                                                                                                                                   95
                                                                                                                                                                                                                                           35
                                                                                                                                                                                                                                                                      54
                                                                                                                                                                                                                                                                                                                                                                                                HEREBS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          isolated polynucleotide encoding a plant transcription factor for ducing a plant e.g. a woody plant, preferably eucalyptus or pine, ing modified gene expression or modified activity of a polypeptide
                                                                                                                                                                                                                                                       aactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggacca 113
                                                                                                                                        ccctccccaaagctgctgggctgcttagatgtgggtaagagttgcagattaagatggataa
                                                                                                                                                                                                aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgtt 173
                                                                                                                                                                                                                                          aaaagatggggagatctccgtgctgtgagaaggctcatactaacaaaggggcctggacta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000-579369/54
                           actacttgaggcctgatcttaagagaggaaatttcactgaagaagaagaagatgagcttatca
                                                                                                                                                                                  aacaagaagacgaccgccttatcgctcacattcgagcccacggcgaagggggctggcgtt
              tcaaactccactccttcgttggcaacaagtggtctttaattgcagggagattgcccggac
                                                                     actacctgcgtcccgatctgaagcgtggaagcttcaccgaagaagaagacgagctcatca
                                                                                                                           cgcttcccaaggccgcagggctgctgagatgcggcaagagctgcagactgcgatggataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.
                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               McGrath A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page
                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                     BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0266513.
99US-0149485.
                                                                                                                                                                                                                                                                                                                                                                     456 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  747pp; English
                                                                                                                                                                                                                                                                                                             26.0%;
77.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shenk MA,
                                                                                                                                                                                                                                                                                                                                                                     349
                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                            Score 261.2;
Pred. No. 5.
                                                                                                                                                                                                                                                                                                                                                                     Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Glenn M;
                                                                                                                                                                                                                                                                                                                                                                     382
                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                     ດ
                                                                                                                                                                                                                                                                                                                                                                     389 T; 0
                                                                                                                                                                                                                                                                                                          .9e-63;
                                                                                                                                                                                                                                                                                                                           21;
                                                                                                                                                                                                                                                                                                                                                                     other;
                                                                                                                                                                                                                                                                                                                         Length 1576;
                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    acacia;
                                                                                                                                                                                                                                                                                               Gaps
                                                                                                 293
                                                                                                                                                       233
                                                                                                                                                                                                                                          94
                                                                      274
                                                                                                                             214
                                                                                                                                                                                   154
                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
AAC42662
  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                          19 MAY 1999
21 MAY 1999
21 MAY 1999
24 MAY 1999
25 MAY 1999
27 MAY 1999
28 MAY 1999
01 JUN 1999
04 JUN 1999
07 JUN 1999
08 JUN 1999
                                                                                                                                                                                                                                                                   19-APR 1999
23-APR 1999
23-APR 1999
23-APR 1999
23-APR 1999
30-APR 1999
30-APR 1999
05-MAY 1999
06-MAY 1999
07-MAY 1999
07-MAY 1999
11-MAY 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-MAR-1999;
25-MAR-1999;
29-MAR-1999;
01-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-FEB-1999;
05-MAR-1999;
09-MAR-1999;
                                                                                                                                                                                                                           14-MAY-1999;
14-MAY-1999;
14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nypridisation assay; genetic mapping; gene expression protein identification; signal transduction pathway; metabolic pathway; promoter: termination pathway;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-APR-1999;
08-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arabidopsis thaliana DNA fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAC42662 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC42662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ggacggacaacgagataaagaactactggaacacacacatcaaaagaaaattgctgagca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000EP-0301439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
990S-0134941
990S-0135123
990S-01355353
990S-0135629
990S-0136783
990S-0136782
990S-0137528
990S-0137528
990S-0137502
990S-01377502
990S-0138540
990S-01388407
                                                                                                                                                                                             99US-0132863
99US-0134218
99US-0134218
99US-0134219
99US-0134221
99US-0134370
99US-0134768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA;
```

밁 S 밁 Š 밁 á 밁 Ş 뫄 S

99US-0147192. 99US-0147260. 99US-0147303. 99US-0147316	99US-0146386. 99US-0146388. 99US-0146389. 99US-0147038. 99US-0147204.	99US-0145913. 99US-0145918. 99US-0145919. 99US-0145951.	9908-0145145. 9908-0145218. 9908-0145224. 9908-0145276.	9905-0145087. 9905-0145089. 9905-0145192.	99US-0144814. 99US-0145086. 99US-0145088.	99US-0144352. 99US-0144632. 99US-0144884.	99US-0144332. 99US-0144333. 99US-0144334.	99US-0144086. 99US-0144325. 99US-0144331.	990S-0143542. 990S-0143624. 990S-0144005.	990S-0142920. 990S-0142927. 990S-0142977.	99US-0142154. 99US-0142055. 99US-0142390.	99US-0140991. 99US-0141287. 99US-0141842.	99US-0140354. 99US-0140695. 99US-0140823.	99US-0139817. 99US-0139899. 99US-0140353.	99US-0139750. 99US-0139763.	9905-0139462. 9905-0139462. 9905-0139463.	99US-0139459. 99US-0139460.	990S-0139456. 990S-0139457. 990S-0139458.	99US-0139492. 99US-0139454. 99US-0139455.	101010101
	٠										·					•	· 1			
										•			•							
		•											•	•						
																			•	
		,																	•	
										•		_								_
Quer Best Matc	PR 22																		ם בן בן	2
Query Match Best Local Matches 31	26-001-1 28-001-1 28-001-1 28-001-1 29-001-1	5-001-1 5-001-1 6-001-1	5-001-1 2-001-1 2-001-1	1-0CT-1	8-0CT-1	4-0CT-1	3-0CT-1	08-0CT-1 12-0CT-1 13-0CT-1						1-AUG-1	7-AUG-1 7-AUG-1	25-AUG-19	0-AUG-1	8-AUG-1 20-AUG-1 20-AUG-1	16-AUG-1 17-AUG-1	
Sim 2;	1999;										1999;			999	999;	999;	999;	999;	** ** **	•
ilarity Conservat	9905-0161 9905-0161 9905-0161 9905-0161 9905-0162	.0-SD66 .0-SD66 .0-SD66 .0-SD66	990S-01	990S-01	99US-01	990S-01	9908-01 9908-01 9908-01	990S-01	990S-01	990S-01	9908-01 9908-01 9908-01	99US-01 99US-01 99US-01	990S-01	99US-01	99US-01	99US-01	99US-01 99US-01	9908-01 9908-01 9908-01	9908-01 9908-01	00116-01
25.8%; 78.2%; ive	161361. 161920. 161992. 161993. 162142.	161405. 161406. 161359. 161360.	60981. 60989. 61404.	60770.	59584. 60741.	.59331. 59637.	759295 63295 7693295 7693295	58232.	57753.	56458	54779. 55139.	54018. 54039.	52363.	51303.	51065.	50566.	49929.	49722.	49368.	10001
Score Pred. 0; Mis																				
259.8; No. 1.1 matches										-										
Score 259.8; DB 21; Pred. No. 1.1e-62; 0; Mismatches 87;										-			٠					. •		
: Length Indels												•								
h 774; 0;	· .			•														響		
																				_

0

14-JUN-1999
16-JUN-1999
17-JUN-1999
18-JUN-1999
19-JUN-1999
19-JUN

gar (g	em ( in a ) is - 1
Y X X X X X X X X X X X X X X X X X X X	0y 111  Db 61  Oy 177  Oy 177  Db 123  Oy 239  Oy 299  Oy 299  Db 241  Oy 359  Oy 359  Db 301  Db 301  Oy 411  Oy 411  Db 361  RESULT  RAC51202
AAC51202 standard; DNA; 639 BP.  AAC51202;  Rrabidopsis thaliana DNA fragment SEQ ID NO: 67644.  Hybridiation assay; genetic mapping; gene expression control; protein identification; signal transduction pathway; metabolic pathway; promoter; termination sequence; ss.  Arabidopsis thaliana.  EP1033405-A2.  06-SEP-2000.  25-FEB-1999; 99US-0121825.  05-MAR-1999; 99US-0121825.  05-MAR-1999; 99US-0125788.  25-MAR-1999; 99US-0125788.  25-MAR-1999; 99US-0126785.  06-ARP-1999; 99US-0126785.  06-ARP-1999; 99US-0128714.  10-ARR-1999; 99US-0130077.  11-ARR-1999; 99US-0130049.  23-ARR-1999; 99US-0130049.  23-ARR-1999; 99US-0132048.  30-ARR-1999; 99US-0132048.  30-ARR-1999; 99US-0132048.  30-ARR-1999; 99US-0132048.  30-ARR-1999; 99US-0132048.  30-ARR-1999; 99US-0132048.  30-ARR-1999; 99US-0132086.  06-MAY-1999; 99US-0132886.  06-MAY-1999; 99US-0132886.  11-MAY-1999; 99US-0134219.	gaagatcaacgcctcatcaacta
	ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט
\$\frac{1}{2} \times \frac{1}{2}	
	MAY - 15 -
	35 - 013 4 2 2 2 3 3 5 - 013 4 2 2 2 3 5 - 013 4 2 2 2 3 5 - 013 5 2 2 2 3 5 - 013 5 2 2 2 3 5 - 013 5 2 2 2 3 5 - 013 5 2 2 2 3 5 - 013 5 2 2 2 3 5 - 013 5 2 2 2 3 5 - 013 7 5 2 2 3 5 - 013 7 5 2 2 3 5 - 013 7 5 2 2 3 5 - 013 7 5 2 2 3 5 - 013 7 5 2 2 3 5 - 013 9 4 5 5 3 5 - 013 9 4 5 5 5 5 - 013 9 4 5 5 5 5 - 013 9 4 5 5 5 5 - 013 9 4 5 5 5 5 - 013 9 4 5 5 5 5 5 - 013 9 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

27-JUL-1999; 27-JUL-1999; 27-JUL-1999; 28-JUL-1999; 02-AUG-1999; 02-AUG-1999; 02-AUG-1999;

-1999

```
RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
XXX PRR PRX TXX PXX XXX PRR XXX PXX XXX PRR XXX PXX XXX PXX XXX PXX XXX PXX XXX PXX PXX XXX PXX PX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 25.:
Best Local Similarity 78.4
Matches 304; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-OCT-1999
25-OCT-1999
26-OCT-1999
26-OCT-1999
26-OCT-1999
28-OCT-1999
28-OCT-1999
28-OCT-1999
                17-NOV-1999;
17-APR-2000;
22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                Transcription factor; environmental stress tolerance; plant structure; plant development; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                               Arabidopsis thaliana transcription factor G664 cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAD06456;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAD06456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-OCT-1999;
                                                                                               14-NOV-2000;
                                                                                                                                         25-MAY-2001
                                                                                                                                                                                WO200136598-A1
                                                                                                                                                                                                                                                                                                                            Arabidopsis thaliana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    attgatccacaaactcatcgtcctctca 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cccaaagctgctgggctgcttagatgtggttaagagttgcagattaagattggataaactac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gaagatcaacgctcatcaactacatccgtgtccatggtgaaggctgctggcgttccctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cttcatagtttatttggcaacaaatggtctttgattgctgggaaattaccgggaagaacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cttcgtcctgatcttaaacgtggaaatttcactgatggtgaagagcaaatcattgtcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gaagatcaacgtcttattgattatatacgtaatcatggtgaaggctcttggcgttctct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                99US-0166228.
2000US-0197899.
2000US-0227439.
                                                                                                 2000WO-US31458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0161405
99US-0161359
99US-0161350
99US-0161360
99US-0161361
99US-0161920
99US-0161992
99US-0161993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0162142
                                                                                                                                                                                                                    /product-
                                                                                                                                                                                                                                           Location/Qualifiers
104.952
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA; 1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25.2%;
                                                                                                                                                                                                                      "Arabidopsis thaliana transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Score 253.6; 1; Pred. No. 5.2e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; DB 21;
5.2e-61;
hes 84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                         gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   639;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14
                                                                                                                                                                                                                            factor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
```

990S-0145951 990S-0146386 990S-0147038 990S-0147203 990S-0147203 990S-0147203 990S-0147203 990S-0147303 990S-0148311 990S-0148311 990S-0148313 990S-0148365 990S-014926 990S-0149723 990S-0149723 990S-0149723 990S-0149723 990S-0149723 990S-0149723 990S-0149723 990S-0150866 990S-0150866 990S-0150866 990S-0150866 990S-0150866 990S-0150866 990S-0150866 990S-0150866 990S-0150866 990S-0151303 990S-0151339 990S-0154779 990S-0155659 990S-0155659 990S-0155659 990S-0155659 990S-0155659 990S-0155659 990S-0155659

28-SEP-1999 29-SEP-1999 04-OCT-1999 05-OCT-1999 06-OCT-1999 07-OCT-1999 12-OCT-1999

18-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 22-OCT-1999 22-OCT-1999 22-OCT-1999 22-OCT-1999 25-OCT-1999 25-OCT-1999

14-0CT-1999; 14-0CT-1999; 14-0CT-1999; 18-0CT-1999;

990S-0157865 990S-015823 990S-0158369 990S-0159293 990S-0159295 990S-0159295 990S-0159329 990S-015933 990S-015933 990S-015963 990S-015963 990S-0160741 990S-0160767 990S-0160768 990S-0160768 990S-0160768 990S-016078 990S-016098 990S-016098 990S-016098 990S-016098 990S-016098 990S-016098 990S-016098 990S-016098

1-OCT-1999;

```
cc transcription factor. This novel transcription factor is useful for condifying a plant's phenotype in desirable ways, such as modifying a cc plants environmental stress. The transcription factor is encoded by cc environmental stress tolerance gene derived from Arabidopsis thaliana. The transcription factors and the genes encoding them are used to alter the structure and developmental characteristics of plants such as cc soybean, wheat, corn, potato, cotton, rice, ollseed rape, sunflower, cc alfalfa, sugarcane, turf, banana, blackberry, blueberry, strawberry, cc antaloupe, carrot, cauliflower, coffee, onion, cucumber, cc gepplant, grapes, honey dew, lettuce, mango, melon, papaya, peas, cc peppers, pineapple, spinach, squash, sweet corn, tobacco, tomato, complant, grapes, honey dew, lettuce, mango, melon, papaya, peas, cc eapplant, grapes, honey dew, lettuce, mango, melon, papaya, peas, cc eare also used for modifying traits associated with environmental stress tolerance, such as freezing, chilling, heat, drought, water saturation, said, in case, the conditions, radiation and ozone. The transcription factors
                                                                                                                                                                                                                                                                                                                                                                       Matches 305;
                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pineda O,
Reuber L,
                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1087 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence is a cDNA encoding Arabidopsis thaliana transcription factor. This novel transcription factor is use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nucleic acids encoding plant transcription factor polypeptides, useful for altering the environmental stress tolerance characteristics of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (RATC/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (YUGG/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MEND-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (KEDD/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HEAR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIEC/)
                                                                                                                                                                                                        219
                                                                                                                                                                                                                                                                                      114
              414
                                         399
                                                                    354
                                                                                             339
                                                                                                                        294
                                                                                                                                                   279
                                                                                                                                                                            234
                                                                                                                                                                                                                                  174
                                                                                                                                                                                                                                                             159
                                                                                                                                                                                                                                                                                                                   99
                                                                                                                                                                                                                                                                                                                              54 aactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaaggtgcctggacca 113
                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    used in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         altering the
                                                                                                                                               ccctccccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                                                                       aagaggaagatcaacgtctcatcaactacatccgtgtccatggtgaaggctgctggcgtt 173
gaggaattgatccacaaactcatcgtcctctcaatcaaac 453
                                                                                                                                                                                                                                                                                                             ctctccccaaagccgccggacttcttcgctgtggcaagagctgccgtctccggtggatca
                                                                                                                                                                                                                                                           aagaagaggacgagaggctcgtcgcctacattaaagctcatggagaaggctgctggagat
                                       gaacagataacgagataaagaactattggaacacgcatatacgaagaaagcttataaaca
                                                                                             tcaagctccatagccttcttggcaacaaatggtcgcttattgccgggagattaccgggaa
                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RATCLIFFE O. REUBER L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIECHMANN J
HEARD J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CREELMAN R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MENDEL BIOTECHNOLOGY INC PINEDA O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEDDIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yu G, Cre
Keddie J;
                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 82-83; 116pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 5
                                                                                                                                                                                                                                                                                                                                                                                                                                       384 A; 202 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Creelman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ۲
                                                                                                                                                                                                                                                                                                                                                                                   24.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          æ,
                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                   Score 248; DB 22,
Pred. No. 2.4e-59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Riechmann JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                          239
                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                          262 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heard
                                                                                                                                                                                                                                                                                                                                                                                                Length 1087;
                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ratcliffe
                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                  413
                                                                                                                        353
                                                                                                                                                   338
                                                                                                                                                                             293
                                                                                                                                                                                                        278
                                                                                                                                                                                                                                  233
                                                                                                                                                                                                                                                             218
                                          458
                                                                                             398
                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
AAC43611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
  16-JUN-1999;
17-JUN-1999;
18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hybridisation assay; genetic mapping; gene expression protein identification; signal transduction pathway; metabolic pathway; promoter; termination sequence; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAC43611;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC43611 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arabidopsis thaliana DNA fragment
                                                                                                                        04-JUN-1999;
07-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-FEB-2000;
                                                                    14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                          06-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                459 gagggattgatccaacgagtcatagaccaatccaagaatc 498
                                                        16-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11
                                                                                               -JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000EP-0301439
                                                                                                            990S-0136392.
990S-0136782.
990S-0137222.
990S-0137528.
990S-0137502.
990S-0137724.
990S-0138094.
                                                                                                                                                                                                                                  990S-0134219.
990S-0134221.
990S-0134370.
990S-0134768.
990S-0134941.
990S-0135124.
990S-0135353.
                                                                                                                                                                                                                                                                                                                                                                       990S-0132486
990S-0132487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0126785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    control;
```

SXCCCCCCCCCCCCCCXXXTTTXXXXIIX

δÃ В Š 밁 Ş 밁 Ş

밁 Š 밁

Š 밁 Š

990S-0139456 990S-0139459 990S-0139461 990S-0139461 990S-0139461 990S-0139462 990S-0139753 990S-0139753 990S-0139837 990S-0139817 990S-0140353

```
QY
                                        В
                                                    Š
               밁
  Š
                                                                 Query Match
Best Local Similarity 76.
Matches 303; Conservative
                                                                                          26-OCT-1999;
26-OCT-1999;
26-OCT-1999;
28-OCT-1999;
28-OCT-1999;
28-OCT-1999;
29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-AUG-
20-AUG-
20-AUG-
                                                                                                                                                                                    21-OCT-1999
21-OCT-1999
                                                                                                                                                                                                               21-OCT-1999
                                                                                                                                                                                                                                              14-OCT-1999
14-OCT-1999
                                                                                                                                                                                                                                                                                                                                  24-SEP-1999
                                        214
                           119
                                                    59
                                                                                                                                                                                                                                                                                                                                               -SEP-1
cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac
                     gaagatcaacgectcatcaactacatccgtgtccatggtgaaggctgctggcggttccctc
                                       gaggacgagggctcgtcgcctacattaaagctcatggagaaggctgctggagatctctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -1999;
-1999;
                                                                                          990S-0160814
990S-0160815
990S-0160980
990S-0160981
990S-0161408
990S-0161405
990S-0161405
990S-0161360
990S-0161360
990S-0161361
990S-0161992
990S-0161992
990S-0161992
                                                                                                                                                                                          99US-0149426.
99US-0149723.
99US-0149723.
99US-0149930.
99US-0150566.
99US-0151065.
99US-0151065.
99US-0151303.
99US-0151303.
99US-0151303.
99US-0151377.
99US-0154038.
99US-0154038.
99US-0154039.
99US-0154039.
99US-0155775.
99US-0156596.
99US-0156596.
99US-0157717.
99US-0157753.
99US-0157753.
99US-0158329.
99US-0159331.
99US-0159331.
99US-0159331.
99US-0159331.
99US-0160741.
99US-0160741.
                                                                        24.6%;
                                                                 Score 247.8;
Pred. No. 2.7e
0; Mismatches
                                                                 1.7e-59;
nes 92;
                                                                               B
                                                                  Indels
                                                                              Length 1062;
                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                ....
                                                                  Gaps
                                         273
                                                      118
                333
                                                                  0;
```

-JUL-19

18-JUN-1999
18-JUN-1999
18-JUN-1999
21-JUN-1999
22-JUN-1999
23-JUN-1999
23-JUN-1999
23-JUN-1999
23-JUN-1999
29-JUN-1999
29-JUN

990S-0140695
990S-0140695
990S-0141287
990S-0142154
990S-0142803
990S-0142803
990S-0142803
990S-0142803
990S-0142803
990S-0142803
990S-0144392
990S-0144331
990S-0144331
990S-0144333
990S-0144333
990S-0144333
990S-0144333

19-JUL-1999
20-JUL-1999
20-JUL-1999
21-JUL-1999
21-JUL-1999
21-JUL-1999
22-JUL-1999
22-JUL-1999
22-JUL-1999
23-JUL-1999
23-JUL-1999
23-JUL-1999
23-JUL-1999
23-JUL-1999
23-JUL-1999
23-JUL-1999
23-JUL-1999
24-JUL-1999
27-JUL-1999
27-JUL-1999
27-JUL-1999
27-JUL-1999
28-JUL-1999
28-JUL-1999
29-AUG-1999
00-AUG-1999
01-AUG-1999

1999 1999 1999 1999 1999 1999 1999

990S-0145276.
990S-0145918.
990S-0145919.
990S-0146386.
990S-0146386.
990S-0147204.
990S-0147204.
990S-014720.
990S-014720.
990S-014720.
990S-014740.
990S-014740.
990S-014740.
990S-014740.
990S-0148319.
990S-0148341.
990S-0148341.
990S-0148341.
990S-0148341.
990S-0148348.

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6996
                  Eucalyptus grandis or Pinus radiata. The present sequence is the coding sequence for one such transcription factor. The transcription factor may be used to produce a plant having modified gene expression such as a woody plant e.g. a eucalyptus, pine, acacia, poplar, sweetgum, teak, or mahogany species or to modify the activity of a polypeptide in a plant. The transcription factors of the present invention are members from the following families of regulatory proteins: bZIP, bZIP family of G-box binding factors, basic helix loop-helix zipper, bZIP family of G-box bomeotic/homeodomain/homeobox/MADS, homeodomain zipper, LIM domain, AP2
                                                                                                                        The
                                                                                                                                                                           New isolated polynucleotide encoding a plant transcription factor for producing a plant e.g. a woody plant, preferably eucalyptus or pine, having modified gene expression or modified activity of a polypeptide
                                                                                                                                                                                                                                                                     (GENE-)
                                                                                                                                                                                                                                                                                                                                                                                                                            Plant; transcription factor; gene expression; eucalyptus; pine; poplar; sweetgum; teak; mahogany; bazir, G-box binding factor; basic helix-loop-helix zipper; homeotic; homeodomain; homeobox; homeodomain zipper; LIM domain; AP2; EREBs; zinc finger domain; type 2 Cys2His2; CCAAT box element; MYB; ss.
                                                                                                                                             Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAC56996 standard; DNA; 631 BP
and EREBs, and MYB.
                                                                                                                                                                                                                                              Wood M,
                                                                                                                                                                                                                                                                                                      11-MAR-1999;
18-AUG-1999;
                                                                                                                                                                                                                                                                                                                                       09-MAR-2000; 2000WO-US06112
                                                                                                                                                                                                                                                                                                                                                             14-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                   WO200053724-A2
                                                                                                                                                                                                                                                                                                                                                                                                        Pinus radiata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pinus radiata transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAC56996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12
                                                                                                                      present invention relates to novel plant transcription factors
                                                                                                                                                                                                                         2000-579369/54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  attgatccacaaactcatcgtcctctcaatcaaac 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gataacgagataaagaactattggaacacgcatatacgaagaaagcttataaacagaggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ctccatagccttcttggcaacaaatggtcgcttattgccgggagattaccgggaagaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ctccggcctgaccttaagcgtggaaacttcaccgaggaagaagacgaactcatcatcaag
                                                                                                                                                                                                                                                                     GENESIS RES & DEV CORP LTD. FLETCHER CHALLENGE FORESTS LTD.
                                                                                                                                                                                                                                             McGrath A,
                                                                                                                                             Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                     99US-0266513.
99US-0149485.
                                                                                                                                           747pp; English
                                                                                                                                                                                                                                                 Shenk MA,
          omeobox/MADS, homeodomain zipper, LIM domain, AP2 domains of type 2 Cys2His2, CCAAT box elements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              factor DNA sequence #442
                                                                                                                                                                                                                                                 Glenn M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pine; acacia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   MADS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     393
                                                                                                                        from
                                                                                                                                                                                                                                                                                                                                       RESULT 1
 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 313
                                                                                                 09-MAR-2000;
                                                                                                                                                                                        type
                                                                                                                                                                                                                                                                                                                          AAC57348 standard; DNA; 1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 631 BP; 165 A; 185
                                                                 11-MAR-1999;
18-AUG-1999;
                                                                                                                                             WO200053724-A2
                                                                                                                                                                                                                                                                                25-JAN-2001
                               (GENE-) GENESIS 1
                                                                                                                                                                                                 homeodomain zipper; LIM domain; AP2; EREBs; zinc finger domain;
                                                                                                                                                                                                                                                                                                                                                                                  511 caacac
                                                                                                                                                                                                                                                                                                                                                                                                       463
                                                                                                                                                                                                                                                                                                                                                                                                                              451
                                                                                                                                                                                                                                                                                                                                                                                                                                                   403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
les 313; Conser
                                                                                                                                                                                                                                                                                                                                                                                                        caacac
                                                                                                                                                                   radiata
                                                                                                                                                                                                                                                          radiata
                                                                                                                                                                                        Cys2H1s2;
                                                                                                                                                                                                                                                                                                                                                                                   516
                                                                                                                                                                                                                                                                                                                                                                                                       468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                 2000WO-US06112
                                                                                                                                                                                                                                                                              (first entry)
                                                                 990S-0266513.
990S-0149485.
                               RES & DEV CORP LTD
R CHALLENGE FORESTS
          Þ
                                                                                                                                                                                         CCAAT box element; MYB; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24.48;
           Shenk MA
                                 FORESTS LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     153
           Glenn M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>ი</u>
```

```
Score 245.2;
Pred. No. 1.1e
0; Mismatches
                                                  128 T; 0 other;
                      ..1e-58;
                             DB
                            21;
                             Length
          寧 0;
              Gaps
102
               0
```

tttgattttgtaactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaagg ccgatggataaactacctgcgtcctgatctgaagcgtggaaacttctcagaagaagaaga aagatggataaactacttgaggcctgatcttaagagagggaaatttcactgaagaagaaga ctgctggcgttccctccccaaagctgctggtggctgcttagatgtggtaagagttgcagatt ggcgtggaccaaagaagaggacgatcgcctcatcgcccacattcgaactcacggcgaagg tgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaagg attgctaaacaggggactcgaccccagtcccatcgcccctcggccagccgcacaacag attgcccgggcggacggacaacgagataaagaactactggaatactcacatcaagagaaa ttgctggcgctcgcttcccaaggccgcagggctgatgcgctgcgggaagagctgcaggct 510 462 402 342 330 270 210 450 282

factor DNA sequence #703

Plant; transcription factor; gene expression; eucalyptus; pine; poplar; sweetgum; teak; mahogany; bZIP; G-box binding factor; basic helix-loop-helix zipper; homeotic; homeodomain; homeobox; acacia; MADS;

WPI; 2000-579369/54

Claim 1; Page 653;

747pp; English.

be used to produce a plant having modified gene expression such as a woody plant e.g. a eucalyptus, pine, acacia, poplar, sweetgum, teak, or mahogany species or to modify the activity of a polypeptide in a plant. The transcription factors of the present invention are members from the following families of regulatory proteins: bZIP, bZIP family of G-box binding factors, basic helix-loop-haltx zipper, LIM domain, AP2 and BREBs, zinc finger domains of type 2 Cys2His2, CCAAT box elements

The present invention relates to novel plant transcription factors from Eucalyptus grandis or Pinus radiata. The present sequence is the coding sequence for one such transcription factor. The transcription factor may be used to produce a plant having modified.

factor may

New isolated polynucleotide encoding a plant transcription factor for producing a plant e.g. a woody plant, preferably eucalyptus or pine, having modified gene expression or modified activity of a polypeptide

Query Match

Sequence 1150 BP;

320 A; 287 C;

277 <u>ن</u>

266 T; 0 other;

DB 21;

Length 1150;

0;

Gaps

0;

222

226

286

162

```
RESULT 1
AAD06466
ID AAD0
XX
AC AAD0
XX
AC AAD0
XX
AC AAD0
XX
AC ACC
XX
AC ACC
XX
AC ACC
XX
AC ACC
XX
ACC
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뎡
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
   Transcription factor; environmental stress tolerance;
                                                                     Arabidopsis
                                                                                                                                       10-AUG-2001
                                                                                                                                                                                                         AAD06466;
                                                                                                                                                                                                                                                                        AAD06466 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 103
                                                                                                                                                                                                                                                                                                                                                                                                                                               467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
nes 313; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tttgattttgtaactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaagg 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                aagatggataaactacttgaggcctgatcttaagagagggaaatttcactgaagaagaaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          caacac 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            attgctaaacaggggactcgacccccagtcccatcgcccctcggccagccgcacaacag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ccgatggataaactacctgcgtcctgatctgaagcgtggaaacttctcagaagaagaaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ttgctggcgctcgcttcccaaggccgcagggctgatgcgctgcgggaagagctgcaggct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ctgctggcgttccctccccaaagctgctgggctgcttagatgtggtaagagttgcagatt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ggcgtggaccaaagaagaggacgatcgcctcatcgcccacattcgaactcacggcgaagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               caacac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         attgcccgggcggacggacaacgagataaagaactactggaatactcacatcaagagaaa
                                                                     thaliana transcription factor G664 homologue, G255 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                       (first
                                                                                                                                                                                                                                                                        CDNA;
                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24.4%;
73.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 245.2; DB 21;
Pred. No. 1.5e-58;
0; Mismatches 113;
                                                                                                                                                                                                                                                                 BP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
   gene therapy;
```

346 342

402 406

Ş 밁 δÃ

100 11 Matches Query Match Best Local :

300;

Similarity

23.48;

Score 235.2; DB 2 Pred. No. 8.4e-56;

Length

918; 0

Ö

108;

Gaps

0;

70 99

40 tgatttgattttgtaactgatgggacgatcaccttgttgtgaaaaggctcataccaacaa

aggtgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccatggtga  Sequence

918

BP;

307 A; 155 C;

217

<u>ດ</u>

239 T; 0 other

```
The present sequence is a cDNA encoding Arabidopsis thaliana contrained the present sequence is a cDNA encoding Arabidopsis thaliana contrained the provided by environmental stress. The transcription factor is encoded by environmental stress. The transcription factor is concoded by environmental stress tolerance gene derived from Arabidopsis thaliana. The transcription factors and the genes encoding them are used to alter the structure and developmental characteristics of plants such as soybean, wheat, corn, potato, cotton, rice, oilseed rape, sunflower, alfalfa, sugarcane, turf, banana, blackberry, papaya, cucumber, eggplant, grapes, honey dew, lettuce, mango, melon, blueberry, peas, peppers, pineapple, spinach, squash, sweet corn, tobacco, tomato, watermelon, rosaceous fruits and/or vegetable brasicas. These sequences tolerance, such as freezing, chilling, heat, drought, water saturation, caralteriant affectors radiations, radiation and ozone. The transcription factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-NOV-1999;
17-APR-2000;
22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     plant structure; plant development;
                                                                                                                                                                                                                                                                                                                                                                      Pineda
Reuber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arabidopsis
                                                                                                                                                                                                                                                                                                                                WPI; 2001-336000/35
P-PSDB; AAE02486.
                                                                                                                                                                                                                                                       Claim 4; Page 102-103; 116pp; English.
                                                                                                                                                                                                                                                                                                        Nucleic acids encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-NOV-2000; 2000WO-US31458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200136598-A1
                                                                                                                                                                                                                                                                                           for altering the environmental stress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (PINE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  HEAR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CREE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEND-)
                                                                                                                                                                                                                                                                                                                                                                                                                                     RATC/)
                                                                                                                                                                                                                                                                                                                                                                      ĻΟ
                                                                                                                                                                                                                                                                                                                                                                                                          REUBER
KEDDIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CREELMAN R.
RIECHMANN J L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YU G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MENDEL BIOTECHNOLOGY PINEDA O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  HEARD J.
                                                                                                                                                                                                                                                                                                                                                                                                                                   RATCLIFFE O.
                                                                                                                                                                                                                                                                                                                                                                     Yu G,
Keddie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               thaliana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0166228.
2000US-0197899.
2000US-0227439.
                                                                                                                                                                                                                                                                                                                                                                                                            9 F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers 30..839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nomologue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product-
                                                                                                                                                                                                                                                                                                                                                                     Creelman
J;
                                                                                                                                                                                                                                                                                              plant transcription factor polypeptides,
onmental stress tolerance characteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Arabidopsis thaliana transcription factor
                                                                                                                                                                                                                                                                                                                                                                                  স
                                                                                                                                                                                                                                                                                                                                                                                    Riechmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88
                                                                                                                                                                                                                                                                                                                                                                                     Heard
                                                                                                                                                                                                                                                                                                                                                                                    Ţ,
                                                                                                                                                                                                                                                                                                                                                                                     Ratcliffe
                                                                                                                                                                                                                                                                                              useful
of
                                                                                                                                                                                                                                                                                                                                                                                    0
```

		The state of the s
סיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסי	OS C	
APR-1999; APR-1999; APR-1999; APR-1999; APR-1999; APR-1999; APR-1999; APR-1999; MAY-1999;	LTT 15 [2479 AAC42479 standard; AAC42479; 17-OCT-2000 (firs Arabidopsis thalia Hybridisation assa protein identifica metabolic pathway; Arabidopsis thalia EP1033405-A2. 06-SEP-2000; 2000E 25-FEB-1999; 99U 05-MAR-1999; 99U 05-MAR-1999; 99U 25-MAR-1999; 99U 25-MAR-1999; 99U 01-APR-1999; 99U 01-APR-1999; 99U 01-APR-1999; 99U	71 aggtgcttgg: 160 aggctgctgg:
99US-0128714 99US-0130449 99US-0130649 99US-0130891 99US-0131449 99US-0132407 99US-0132484 99US-0132486 99US-0132486 99US-0132486 99US-0132486 99US-0132487 99US-0134286 99US-0134286 99US-0134286 99US-013426 99US-013426 99US-013426 99US-0134276 99US-0134276	DNA; 839 BP.  t entry)  t entry)  na DNA fragme y; genetic ma tion; signal promoter; te na.  p-0301439.  p-0301439.  s-0123180. s-0123180. s-0123548. s-0125788. s-0125788. s-0125788. s-0127462. s-0127462.	taaagaagaagatgagagact 
	NO: 35715.  ne expression ion pathway; sequence; ss.	acatcaagtctcacg gatgtggtaagagtt gctgggtaaaaagct gaaatttcactgaag                     gaaactttacacatg aatggtcattgattc                     agtggtctttgattg agtggtctttgattc ggaacacacacatca                        agtggtcttttacacatca ggaacacacacatata ctctcaa 447
		ggtga 130 tgcag 219 t
טי ט		ס ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט
- JUL 1999 - JUL 1999	18-JUN-1999 18-JUN-1999 18-JUN-1999 18-JUN-1999 18-JUN-1999 18-JUN-1999 18-JUN-1999 18-JUN-1999 21-JUN-1999 22-JUN-1999 23-JUN-1999 23-JUN-1999 23-JUN-1999 23-JUN-1999 23-JUN-1999 24-JUN-1999 25-JUN-1999 26-JUL-1999 06-JUL-1999 06-JUL-1999 07-JUL-1999 18-JUL-1999	- MAY 199 - JUN 199
S-0144333 S-0144333 S-0144352 S-01448352 S-0145086 S-0145086 S-0145089 S-0145089 S-0145218 S-0145218 S-0145218 S-0145218 S-0145218 S-0145218	990S-0139458 990S-0139461 990S-0139461 990S-0139462 990S-0139463 990S-0139750 990S-0139899 990S-01400353 990S-01400353 990S-0140695 990S-014287 990S-014287 990S-014287 990S-014287 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0142803 990S-0144085 990S-0144085 990S-0144335	S-013535 S-013535 S-013535 S-013535 S-01375 S-01375 S-01375 S-013875 S-013945 S-013945 S-013945 S-013945 S-013945
	·	

28-JUL-1999 02-AUG-1999 02-AUG-1999 02-AUG-1999 03-AUG-1999 04-AUG-1999 04-AUG-1999 05-AUG-1999

-1999;

-1999

99US-0145951 99US-0146388 99US-0146389 99US-0147203 99US-0147203 99US-0147302 99US-0147303 99US-0147416 99US-0147493 99US-01481171 99US-0148141 99US-0148341 99US-0148341 99US-0149368 99US-0149723 99US-0151066 99US-0151066

0

```
Search completed: January
Job time: 3469 sec
                                                                                       δõ
                                                                                                                      QΥ
                                                                                                                                                        20
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                           ρy
                                                                         밁
                                                                                                         밁
                                                                                                                                         밁
                                                                                                                                                                         밁
                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                          뮹
                                                                                                                                                                                                                                                                          Query Match 23.2%;
Best Local Similarity 75.1%;
Matches 292; Conservative
                                                                                                                                                                                                                                                                                                          26-OCT-1999;
26-OCT-1999;
28-OCT-1999;
28-OCT-1999;
28-OCT-1999;
29-OCT-1999;
                                                        419
                                                                         330
                                                                                         359
                                                                                                          270
                                                                                                                                         210
                                                                                                                                                          239
                                         390
                                                                                                                         299
                                                                                                                                                                          150
                                                                                                                                                                                          179
                                                                                                                                                                                                                          119
                                                                                                                                                                                                           90
                                                                                                                                                                                                                                           30
                                                                                                                                                                                                                                                          59
                                       attgatccagccactcatagagggatcaa
                                                 attgatccacaaactcatcgtcctctcaa
                                                                       ttgaggcctgatcttaagagaggaaatttcactgaagaagaagaagatgagcttatcatcaag
                                                                                                                                                                        gaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctgggggttccctc
                                                                                                                                                                                                                                                   atgggacgatcaccttgttgtgaaaaggctcataccaacaaaggtgcctggaccaaagag
                                                                                                                                                                                                                                          atgggaagatctccttgctgcgagaaagaacacatgaacaaaggtgcttggactaaagaa
                                                                                                                                                                                                         gaagatgagagactagtctcttacatcaagtctcacggtgaaggttgttggcgatctctt
                                                                                                                                                                                                                                                                                                          99US-0161360.
99US-0161361.
99US-0161920.
99US-0161992.
99US-0161993.
99US-0162142.
        23,
        2002,
                                                                                                                                                                                                                                                                         ; Score 233.8;
; Pred. No. 2e-5
0; Mismatches
        20:25:21
                                        418
                                                        4.17
                                                                                                                                                                                                                                                                                    2e-55
                                                                                                                                                                                                                                                                                           ₽B
                                                                                                                                                                                                                                                                           97;
                                                                                                                                                                                                                                                                                           21;
                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                          83<u>9</u>
0,
                                                                                                                                                                                                                                                                           Gaps
                                                                         389
                                                                                         418
                                                                                                          329
                                                                                                                          358
                                                                                                                                         269
                                                                                                                                                          298
                                                                                                                                                                          209
                                                                                                                                                                                          238
                                                                                                                                                                                                                           178
                                                                                                                                                                                                                                            68
                                                                                                                                                                                                                                                          118
                                                                                                                                                                                                           149
```

01-SEP 07-SEP 10-SEP 13-SEP

16-SEP 20-SEP 22-SEP 23-SEP

24 -SEP

-SEP-1

1-SEP-1 1-OCT-1 5-OCT-1 5-OCT-1

-1999

14-OCT-1999 14-OCT-1999 18-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 21-OCT-1999 22-OCT-1999 22-OCT-1999 23-OCT-1999 25-OCT-1999 25-OCT-1999

08-OCT-1999; 12-OCT-1999; 13-OCT-1999; 13-OCT-1999; 13-OCT-1999; 14-OCT-1999;

9905-0154039 9905-0154139 9905-0155486 9905-015545659 9905-0156596 9905-0157175 9905-0158029 9905-0158029 9905-0158029 9905-0158029 9905-0158029 9905-0159293 9905-0159293 9905-0159293 9905-0159293 9905-0159329 9905-0159329 9905-0159329 9905-0159329 9905-0159329 9905-0160741 9905-0160741 9905-0160741 9905-0160741 9905-0160741 9905-0160741 9905-0160815 9905-0160980 9905-0160980 9905-0161406 9905-0161406

ritle:

Run on:

Sequence ! Patent No.

Sequence Sequence Sequence

Sequence Sequence

Sequenge

17, Appl Appl 5312912 5, Appl 5, Appl 18, Appl 138, App 138, App

Sequence Sequence Sequence

Sequence

Sequence

Appli Appli Appli Appl

Sequence Sequence

Sequence

```
Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rotal number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM nucleic - nucleic search; using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d. No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                79
79
79
79
79
79
79
79
79
79
79
                                                                                                                                                                                                                                            49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Issued_Patents_NA:*

1: /cgn2_6/ptodata/2

2: /cgn2_6/ptodata/2

3: /cgn2_6/ptodata/2

4: /cgn2_6/ptodata/2

5: /cgn2_6/ptodata/2

6: /cgn2_6/ptodata/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            351203 seqs, 113238999 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTITY_NUC Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-453-387A-1
1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        January 23, 2002, 18:48:37 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    taacaccgttattcttctc.....aatgcttaattattaaaaaa 1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6A_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/2/ina/Packfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                2234
2235
2335
2335
2335
2330
2330
2469
469
469
469
469
27218
2823
2749
2749
2749
2749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version (c) 1993 - 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gapext 1.0
                                           US-09-008-979A-6
US-09-366-691B-4
US-08-36-691B-2
US-09-008-979A-2
US-09-460-61B-2
US-08-485-139-1
US-08-485-139-5
US-08-485-139-5
US-08-750-357-5
US-08-814-030-2
US-08-814-030-2
US-08-814-030-2
US-08-814-030-2
US-08-814-030-2
US-08-814-030-2
US-08-317-707-1
US-08-317-707-1
US-08-314-695-17
US-09-244-695-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCT-US93-06251-90
US-08-306-691B-45
PCT-US93-06251-91
PCT-US93-06251-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Search time 90.74 Seconds (without alignments) 2510.876 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Description
                                                                          Sequence
Sequence
Sequence
                                                                                                                                                                                                                                            Sequence
Sequence
                                                                                                                                                                                                                                                                                                   Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                         Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
Sequence
                                                                                                                                                              Sequence
Sequence
                                                   Sequence
                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                45, Appl

45, Appl

50, Appl

89, Appl

60, Ap
                                                                                                    Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 1
US-08-722-626B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1, Application US/08722626B Patent No. 5939601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: PARTICLE PARTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Pat Hagan
REGISTRATION NUMBER: 27,643
REFERENCE/DOCKET NUMBER: 97-0
TELECOMMUNICATION INFORMATION:
TELEPHAN: 215 563-4044
TELEPAX: 215 563-4044
                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
                                                                                                       TOPOLOGY: 1in
MOLECULE TYPE:
HYPOTHETICAL: NO
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Yang, Yinong
APPLICANT: Klessig, Daniel, F.
TITLE OF INVENTION: NOVEL GENES ASSOCIATED WITH ENHANCED
TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                   ORIGINAL SOURCE:
                                                                                   FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 1601 Market
CITY: Philadelphia
                                                                                                                                                                                                                                                  LENGTH: 1344 base
TYPE: nucleic acid
                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: sing
NAME/KEY: Coding Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E: Dann, Dorfman, Herrell and Skillman
1601 Market Street Suite 720
                                                                                                                                                                                              linear
                                                                                                                                                                                                                        single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7215
74 48974
48974
2247
22290
22317
3944
864
864
864
864
864
864
864
864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/08/722,626B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-749-522-5

US-08-467-504-3

US-08-623-906A-8

US-08-906-769-J38

US-08-906-616-138

US-08-906-616-138

US-09-012-431-J38

US-09-012-692-138

US-09-012-692-138

US-09-306-593-1

US-08-902-853-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-952-014C-35
US-08-378-313-22
US-08-920-422-17
US-08-760-615-5
5312912-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97-0010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-248-466B-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
```

Result No.

a

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; LOCATION: 148...981
; OTHER INFORMATION:
US-08-722-626B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      us-08-997-251-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 233; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Applic
Patent No. 6271440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                              APPLICATION NUMBER: AU PN3779/95 FILING DATE: 23-JUN-1995 ATTORNEY/AGENT INFORMATION:
                                                                                                               APPLICATION NUMBER: AU PN6470/95
FILING DATE: 09-NOV-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                 APPLICATION NUMBER: WO AU96/00383 FILING DATE: 21-JUN-1996 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         148 ATGGTGAGAGCTCCTTGTTGTGAGAAAATGGGGCCTGAAAAAAGGGGCCATGGATTCCTGAA 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         299 cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        388 TTACATGAAATGCTTGGCAATAGATGGTCTGCAATAGCAGCAAAATTACCAGGACGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPLICANT: JACOBSEN, JOHN V.
ITLE OF INVENTION: PLANT REGULATORY PROTEINS
UMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              59 atgggacgatcaccttgttgtgaaaaggctcataccaacaaaggtgcctggaccaaagag 118
                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
              NAME: Winner, Ellen P. REGISTRATION NUMBER: 28 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 5370 |
CITY: Boulder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAGATCAGATTCTCATCTCTTTCAATCAAACTAATGGCCATGGCAACTGGCGAGCCCTT 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgttccctc 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCAAACAGGCTGGACTATTGAGATGCGGGAAGAGTTGCAGACTGCGGTGGACGAATTAT 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAATGAAATAAAAATGTTTGGCACACCCACTTGAAGAAGAAGCTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGCGACCAGATATAAAGAGGGGAAATTTCACCAAGGAAGAAGAAGAACAATTATCCAG
                                                                                                                                                                                                                                                                                                                                                                                               80303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/08997251
                                                                                                                                                                                                                                                                                                                                                                                                                               ဗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               5370 Manhattan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               SD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GUBLER, FRANZ J
                                                                                                                                                                                                                                                                                                                                                                                                                                                 E ADDRESS:
Greenlee, Winner and Sullivan,
77 Manhattan Boulevard
INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16.1%;
66.4%;
                              28,547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches 118;
              110-97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 162.2; DB 2
Pred. No. 3.5e-39;
                                                                                                                                                                                                                                                                                                            Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

```
US-08-997-251-3
; Sequence 3, Application US/08997251
patent No. 6271440
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  β
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LOCATION:
US-08-997-251-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (303) 499-808
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPOSEMS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
                                                                                                                                                                                                                            APPLICANT: GUBLER,
APPLICANT: JACOBSEN
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
ORIGINAL SOURCE:
CURRENT APPLICATION
                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                             APPLICANT: JACOBSEN, JOHN V.
TITLE OF INVENTION: PLANT REGULATORY PROTEINS
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IMMEDIATE SOURCE:
CLONE: HVGAMYD
                                                                                                                             ADDATE
STREET: 30, STREET: Boulder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  145
                                                                                                                                                                                                                                                                                                                                                                                                                               385 cacacacatcaaaaga 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  265 tttcactgaagaagaagatgagcttatcatcatcaagcttcaccagtttacttggaaacaaatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 511 CGGCAAGAGCTGCCGCCTCCGGTGGGCGAACCACCTCAGGCCCCAACCTCAAGAAGGGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205 tggtaagagttgcagattaagatggataaactacttgaggcctgatcttaagagaggaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 451 GAAGAAGCACGGCGAGGGGAACTGGAACGCGGTGCAGAAGAACACCGGGCTGTTCCGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  391
                                                                                                                                                                                                                                                                                                                                                                                                691 CACTCGAATAAAGAGA 706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN: Himalaya
DEVELOPMENTAL STAGE: Seed
TISSUE TYPE: Aleurone layer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         85 ggctcataccaacaaaggtgcctggaccaaagaggaagatcaacgcctcatcaactacat 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
LOCATION: 275..1933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cogtgtccatggtgaaggctgctggcgttccctccccaaagctgctgggctgcttagatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTCGGATGGCCGCTCATTTGCCAGGGCGTACTGATAATGAAATAAAGAATTACTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCACCCCGAGGAGGAGGGCTCATCATCCAGCTCCACTCCAAGATGGGCAACAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGCCTCTGAAGAAGGGGCCCTGGACGTCCGCGGAGGACGCCATCCTGGTGGACTACGT | 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gtcattgattgctggaagattaccaggaagaacagataatgagataaagaactactggaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  187;
                                                                                             80303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H: 2220 base pairs nucleic acid
                                                                                                                                                              5370 Manhattan Boulevard
                                                                                                              SD
                                                                                                                                                                                                                                                               GUBLER, FRANZ J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hordeum vulgare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                               Greenlee, Winner and Sullivan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (303) 499-8080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     499-8089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10.98;
             Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 109.6;
Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches 129;
                 Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .2e-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4;
                  .
30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2220;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204
```

0,

CLASSIFICATION: APPLICATION NUMBER: FILING DATE: 23-DE

23-DEC-1997

us/08/997,251

WO AU96/00383

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       망
                                                                                                                                RESULT 4
PCT-US93-06251-90
                                                                                                                                                                                                                                                                                                ρy
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; NAME/KEY:
; LOCATION:
US-08-997-251-3
                                                                                             Sequence 90, Application PC/TUS9306251 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: AU PN3779
FILING DATE: 23-UN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Winner, Ellen p
REGISTRATION NUMBER: 28,547
REFERENCE/DOCKET NUMBER: 110-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 499-8080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (303) 499-8089 INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
                               TITLE OF INVENTION: Trivalent Synthesis of Oligonucleotides Containing TITLE OF INVENTION: Stereospecific Alkylphosphonates and Arylphosphonates NUMBER OF SEQUENCES: 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO A
FILING DATE: 21-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 09-NOV-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU PN6470/95
                 CORRESPONDENCE ADDRESS
                                                                                                                                                                                                      816
                                                                                                                                                                                                                                                                                                                                      696
                                                                                                                                                                                                                                                                                                                                                                                                      636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       516 AAGAAGGGGCCATGGACGTCGGCGGAGGACGCCATCCTGGTGGACTACGTGAAGAAGCAC 575
                                                                                                                                                                                                                     395 aaaaga 400
|| || ||
                                                                                                                                                                                                                                                                                                                                                                                                                                      215
                                                                                                                                                                                                                                                                    756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95 aacaaaggtgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccat 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM:
 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                        tgcagattaagatggataaactacttgaggcctgatcttaagagaggaaatttcactgaa 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ggtgaaggctgctggcgttccctccccaaagctgctgggctgcttagatgtggtaagagt 214
                                                                                                                                                                                                                                                                                                                                                      gaagaagatgagcttatcatcaagcttcacagtttacttggaaacaaatggtcattgatt 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCGAGGGGAACTGGAACGCGGTGCAGAAGAACACCGGGCTGTTCCGGTGCGGCAAGAGC
                                                                                                                                                                                                                                                                                                                                    GAGGAGGAGGCTCATCATCCAGCTCCACTCCAAGATGGGGAACAAGTGGGCTCGGATG
                                                                                                                                                                                                    AAGAGA 821
                                                                                                                                                                                                                                                                    GCCGCTCATTTGCCAGGGCGCACTGATAATGAAATAAAGAATTACTGGAATACTCGAATA
                                                                                                                                                                                                                                                                                              TGCCGCCTCCGGTGGGCGAACCACCTGAGGCCCAACCTCAAGAAGGGGGCCTTCACCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2352 base pairs
                                                              Wickstrom, Eric and Rife, Jason P.
WENTION: Trivalent Synthesis of Oligonucleotides Containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
396..2054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
SCULLY, SCOTT, MURPHY & PRESSER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AU PN3779/95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 110-97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 109.2; DB 4; Pred. No. 4.3e-23; 0; Mismatches 123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 2352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                     695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                 Ωy
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      皮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
 ADDRESSEE:
```

```
US-08-306-691B-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCT-US93-06251-90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: DIG19110, Frank S.
REGISTRATION NUMBER: 31,346
REFERENCE/DOCKET NUMBER: 8566
TELECOMMUNICATION INFORMATION:
TELEPHONE: 516-742-4343
TELEFAX: 516-742-4366
TELEX: 230 901 SANS UR
INFORMATION FOR SEQ ID NO: 90:
                                                                                                Patent No. 5734039
GENERAL INFORMATION:
                                                                                                                       Sequence 45, Application US/08306691B Patent No. 5734039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                          APPLICANT: Calabretta, Bruno APPLICANT: Skorski, Tomasz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                            357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        237
                                                                                                                                                                                                                                                                                    382
                                                                                                                                                                                                                                                                                                                                                                322
                                                                                                                                                                                                                                                                                                                                                                                                                                                262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         142 catccgtgtccatggtgaaggctgctggcgttccctccccaaagctgctgggctgcttag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                        297 CTCCTGGACAGAAGAGAAGACAGAATTATTTACCAGGCACACAAGAGACTGGGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180 TGTACAGAAATACGGTCCGAAACGTTGGTCTGTTATTGCCAAGCACTTAAAGGGG----AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82 aaaggotcataccaacaaaggtgcctggaccaaagaggaagatcaacgactcatcaacta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC
OPERATING SYSTEM:
SOFTWARE: PatentI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 400 Garden City Plaza CITY: Garden City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                   atggtcattgattgctggaagattaccaggaagaacagataatgagataaagaactactg
                                                                                                                                                                                                                                                                                                                                                                                                                                         aaatttcactgaagaagaagatgagcttatcatcaagcttcacagtttacttggaaacaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         atgtggtaagagttgcagattaagatggataaactacttgaggcctgatcttaagagagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAACCCTGAGCTCATCAAGGGTCCTTGGACCAAAGAAGAAGATCAGAGAGTGATAGAGCT
                                                                                                                                                                                                                                             GAATTCTACAATGCGTCGGAAGGT 440
                                                                                                                                                                                                                                                                                gaacacacaccatcaaaagaaagct 405
                                                                                                                                                                                                                                                                                                                            ATGGGCAGAAATCGCAAAGCTACTGCCTGGACGAACTGATAATGCTATCAAGAACCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATTGGAAAACAATGTAGGGAGAGGTGGCATAACCACTTGAATCCAGAAGTTAAGAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ϋ́N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1035 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
Patentin Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19930630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.9%;
54.9%;
ANTISENSE
OLIGONUCLEOTIDES TARGETING COOPERATING: 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT/US93/06251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 79.2; DB 5; Pred. No. 3e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches 143;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ω
••
                       ONCOGENES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
```

1;

261

416 381 356 321 296 201

Seidel, Gonda, Lavorgna & Monaco, P.C

ADDRESS:

- 26

```
US-08-306-691B-45
                                                                                              PCT-US93-06251-91
Sequence 91, Application PC/TUS9306251
GENERAL INFORMATION:
APPLICANT: Wickstrom, Eric and Rif
                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 178; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: NO. 5734039e INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 83
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215).568-8383
TELEPAX: (215).568-5549
TELEX: No. 5734039e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: WOIDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08,
FILING DATE: September 15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM.TYPE: Diskette, 3.50 inch, 720
COMPUTER: IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Monaco, Daniel A.
REGISTRATION NUMBER: 30,480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS
                                                         TITLE OF INVENTION:
NUMBER OF SEQUENCES: SCORRESPONDENCE ADDRESS: SCULLY, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              202 atgtggtaagagttgcagattaagatggataaactacttgaggcctgatcttaagagagg 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      431 TGTACAGAAATACGGTCCGAAACGTTGGTCTGTTATTGCCAAGCACTTAAAGGGG---AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    142 catccgtgtccatggtgaaggctgctggcgttccctccccaaagctgctgggctgcttag 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 371 AAACCCTGAGCTCATCAAGGGTCCTTGGACCAAAGAAGAAGATCAGAGAGTGATAGAGCT 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Philadelphia
STATE: Perro
                                                                                                                                                                                                                                                                                                                809
                                                                                                                                                                                                                                                                                                                                                                                            548
                                                                                                                                                                                                                                                                                                                                                       322
                                                                                                                                                                                                                                                                       382 gaacacacacatcaaaagaaagct 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ropology:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                   aaatttcactgaagaagaagatgagcttatcatcaagcttcacagtttacttggaaacaa 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      aaaggeteataccaaacaaaggtgeetggaccaaagagggaagatcaaegceteatcaaeta 141
                                                                                                                                                                                                                                                                                                                                                                                            CTCCTGGACAGAAGAGACAGAATTATTTACCAGGCACACAAGAGACTGGGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTGGAAAACAATGTAGGGAGAGGTGGCATAACCACTTGAATCCAGAAGTTAAGAAAAC 547
                                                                                                                                                                                                                                                                                                                                               atggtcattgattgctggaagattaccaggaagaacagataatgagataaagaactactg 381
                                                                                                                                                                                                                                 GAATTCTACAATGCGTCGGAAGGT 691
                                                                                                                                                                                                                                                                                                                ATGGGCAGAAATCGCAAAGCTACTGCCTGGACGAACTGATAATGCTATCAAGAACCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pennsylvania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Two Penn Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3225 base pairs
                                                       Wickstrom, Eric and Rife, Jason P.

NENTION: Trivalent Synthesis of Oligonucleotides Containing
NENTION: Stereospecific Alkylphosphonates and Arylphosphonates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     UMBER: US/08/306,6918
September 15, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.98;
  SCOTT, MURPHY & PRESSER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8321-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 79.2; DB 1;
Pred. No. 5.6e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches 143;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 3225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                  QY
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT-US93-06251-91
                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                  PCT-US93-06251-89
                                                                                                  Sequence 89, Application PC/TUS9306251
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Wickstrom, Eric and Rife, Jason P.
TITLE OF INVENTION: Trivalent Synthesis of Oligonucleotides Containing
TITLE OF INVENTION: Stereospecific Alkylphosphonates and Arylphosphonates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 178; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 516-742-4366
TELEX: 230 901 SANS UR
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 85
TELECOMMUNICATION INFORMATION:
TELEPHONE: 516-742-4343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                               NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     431 TGTACAGAAATACGGTCCGAAACGTTGGTCTGTTATTGCCAAGCACTTAAAGGGG---AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     142 catccgtgtccatggtgaaggctgctggggttccctccccaaagctgctgggctgcttag
                                                                                                                                                                                                                                                                                  899
                                                                                                                                                                                                                                                                                                                     382 gaacacacacatcaaaagaaagct 405
                                                                                                                                                                                                                                                                                                                                                                                                322 atggtcattgattgctggaagattaccaggaagaacagataatgagataaagaactactg
                                                                                                                                                                                                                                                                                                                                                                                                                                           548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 19930 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 400 Garde CITY: Garden City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: DIV. 742-4366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: DiGiglio, Frank S. REGISTRATION NUMBER: 31,346
                        ADDRESSEE:
STREET: 4(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCTGGACAGAAGAGAAGACAGAATTATTTACCAGGCACACAAGAGACTGGGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       aaaggctcataccaacaaaggtgcctggaccaaagaggaagatcaacgcctcatcaacta
                                                                                                                                                                                                                                                                                  GAATTCTACAATGCGTCGGAAGGT
                                                                                                                                                                                                                                                                                                                                                           ATGGGCAGAAATCGCAAAGCTACTGCCTGGACGAACTGATAATGCTATCAAGAACCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            aaatttcactgaagaagaagatgagcttatcatcaagcttcacagtttacttggaaacaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATTGGAAAACAATGTAGGGAGAGGTGGCATAACCACTTGAATCCAGAAGTTAAGAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        atgtggtaagagttgcagattaagatggataaactacttgaggcctgatcttaagagagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAACCCTGAGCTCATCAAGGGTCCTTGGACCAAAGAAGAAGATCAGAGAGTGATAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Y
    SEE: SCULLY, SCOTT, MURPHY & PRESSER: 400 Garden City Plaza
Garden City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         400 Garden City Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3225 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19930630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.98;
                                                                                       93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT/US93/06251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 79.2;
Pred. No. 5.
                                                                                                                                                                                                                                                                                      691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ore 79.2; DB 5;
ed. No. 5.6e-14;
Mismatches 143;
```

Length 3225; Indels

ω

Gaps

**⊬** 

381

607 321

667

547 261 201 430

487

밁

S 밁

밁

Š 밁 Ş 밁 S

X

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                              50
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                         US-09-008-979A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 178; Conserv
                                                                                                                                      Sequence 6, Application US/09008979A Patent No. 6080914
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 230 901 SANS UR INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: DiG19110, Frank S.
REGISTRATION NUMBER: 31,346
REFERENCE/DOCKET NUMBER: 85.
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT
NAME: DiGigi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                            CORRESPONDENCE ADDRESS:
                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                321 TGTACAGAAATACGGTCCGAAACGTTGGTCTGTTATTGCCAAGCACTTAAAGGGG----AG
                                                                                                                                                                                                                                                    558 GAATTCTACAATGCGTCGGAAGGT 581
                                                                                                                                                                                                                                                                                       382 gaacacacacatcaaaagaaagct 405
                                                                                                                                                                                                                                                                                                                                                      322
                                                                                                                                                                                                                                                                                                                                                                                    438
                                                                                                                                                                                                                                                                                                                                                                                                                   262
                                                                                                                                                                                                                                                                                                                                                                                                                                                   378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          142 catccgtgtccatggtgaaggctgctggcgttccctccccaaagctgctgggctgcttag 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82 amaggeteataceamegagtgeetggacemaagaggaagatemacgeeteatemaeta 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 510-742-4366
                                                                                                      PPLICANT: Conner, Timothy W. TLE OF INVENTION: Strawberr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE:
                                              STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
COUNTRY:
                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                      aaatttcactgaagaagaagatgagcttatcatcaagcttcaccagtttacttggaaacaa 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          atgtggtaagagttgcagattaagatggataaactacttgaggcctgatcttaagagagg 261
                                                                                                                                                                                                                                                                                                                       ATGGGCAGAAATCGCAAAGCTACTGCCTGGACGAACTGATAATGCTATCAAGAACCACTG 55;
                                                                                                                                                                                                                                                                                                                                                   atggtcattgattgctggaagattaccaggaagaacagataatgagataaagaactactg
                                                                                                                                                                                                                                                                                                                                                                                    CTCCTGGACAGAAGAGAGACAGAATTATTTACCAGGCACACAAGAGACTGGGGAACAG 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTGGAAAACAATGTAGGGAGAGGTGGCATAACCACTTGAATCCAGAAGTTAAGAAAAAC 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAACCCTGAGCTCATCAAGGGTCCTTGGACCAAAGAAGAAGATCAGAGAGTGATAGAGCT 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic acid
                             Houston
                Texas
                                               P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                             Carmen Rodriguez,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    516-742-4343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19930630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       double
                                                                                                           Strawberry Promoters and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCT/US93/06251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     89:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 79.2;
Pred. No. 5
                                                             Paralegal, Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; DB 5;
5.6e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 3230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-460-618-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         us-09-008-979A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 107;
                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N
```

```
Query Match 6.9%;
Best Local Similarity 70.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (713) 787-1.
TELEFAX: (713) 789-267:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 785 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION:
CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: MO
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
120 AAAAGGATCAAAAGACGGCTTCATACGCAAA 150
                                                                                                                                                                                                                                                                                                         281 gatgagettateateaagetteaeagtttaettggaaacaaatggteattgattgetgga 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE:
                                                                              aagcttataagcagaggaattgatccacaaa 431
                                                                                                                                                                                                               CGATTGCCAGGAAGAACTGCCAATGATGTGAAGAACTATTGGA - - ATACTTATCAAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                               GTTGATTTGATCATCAGGCTTCATAAGCTTCTAGGAAACAGGTGGTCTTTAATTGCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            77210-4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        789-2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          787-1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US/09/008,979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOBT: 058 (38-21(10613)A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 69.8; DB 3;
Pred. NO. 1.8e-11;
0; Mismatches 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                               119
```

1;

Sequence 6, Application US/09460618 Patent No. 6235482 GENERAL INFORMATION: COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US ATTORNEY/AGENT INFORMATION: PRIOR APPLICATION DATA:
APPLICATION NUMBER: CORRESPONDENCE ADDRESS: NUMBER OF SEQUENCES: COUNTRY: USA ZIP: 77210-4433 NAME: Kammerer, Pati REGISTRATION NUMBER: CLASSIFICATION: FILING DATE DDRESSEE: ITY: Houston Texas E: Carmen Rodriguez, Paralegal, Arnold, White & Durkee P.O. Box 4433 Conner, Timothy W. Strawberry Promoters and . US/09/460,618 us/09/008,979

ij

```
US-08-306-691B-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 107; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 46, Application US/08306691B Patent No. 5734039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (713) 789-267
INFORMATION FOR SEQ ID NO:
SEQUENCE: CHARACTERISTICS:
                                                                                             NAME: MONACO, DANIEL A.
REGISTRATION NUMBER: 30,480
REFERENCE/DOCKET NUMBER: 832:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-8383
TELEPAX: (215) 568-5549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENERAL INFORMATION:
                                                                      TELEX: NO. 5734039e
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: MCTELECOMMUNICATION INFORMATION: (713) 787-1438
                                                                                                                                                                                                                                                                                          SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                 FILING DATE: Septembe
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120 AAAAGGATCAAAAGACGGCTTCATACGCAAA 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     401 aagcttataagcagaggaattgatccacaaa 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 CGATTGCCAGGAAGAACTGCCAATGATGTGAAGAACTATTGGA--ATACTTATCAAAGGA 119
                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N
                                         ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTGATTTGATCAGGCTTCATAAGCTTCTAGGAAACAGGTGGTCTTTAATTGCCGGA 61
                                                                                                                                                                                                                                                                                                                                                                                                                         f: Two Penn Center,
Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1: 785 base pairs nucleic acid
                             nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                             Pennsylvania
                                       2638 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Calabretta, Bruno
                                                                                                                                                                                                                                                                                                                                    IBM PS/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Seidel,
                                                                                                                                                                                                                                                            September 15,
                                                                                                                                                                                                                                                                                                                                                  Diskette, 3.50 inch, 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   double
            single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            789-2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OLIGONUCLEOTIDES TARGETING COOPERATING ONCOGENES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ANTISENSE
                                                                                                                                                                                                                                                                                                                       MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gonda,
                                                                                                                                                                                                                                                                             US/08/306,691B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.
                                                                      46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOBT: 058 (38-21(10613)A)
                                                                                                                                                                                                                                                                                                                                                                                                                                        , Lavorgna & Monaco, P.C Suite 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                              8321-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 69.8; DB 4;
Pred. No. 1.8e-11;
                                                                                                                                                                                                                                                                                                                                                     중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4; Length 785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-306-691B-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-008-979A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      277
                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171;
```

S 밁 á 밁

```
Sequence 2, Application US/09008979A Patent No. 6080914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                     TELEFAX: (713) 789-26 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                SEQUENCE CHARACTERISTICS:
LENGTH: 469 base pairs
TYPE: nucleic acid
                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    670 AAGGAAGGTGGACACAGGAGG 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          610 CAAGATGTTGCCAGGGAGGACAGACAATGCTGTGAAGAATCACTGGAACTCTACCATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 550 GGAGGACCGCATCATCTGCGAGGCCCACAAGGTGCTGGGCAACCGCTGGGCCGAGATCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    433 CACAAAGCAGTGGACACTGATTGCCAA---GCACCTGAAGGGCCGGCTGGGGAAGCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          373 CAAGGGGCCATGGACCAAAGAGGAAGACCAAAAAGTCATCGAGCTGGTTAAGAAGTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97 caaaggtgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtgcatgg
                                                                                                                                                          NAME: Kammerer, Patricia REGISTRATION NUMBER: 29;7 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 77210-4433
             STRANDEDNESS:
                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 aagaaagcttataagcagagg 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tgaaggetgetggegtteeeteeceaaagetgetgggetgettagatgtggtaagagttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGTGAACGCTGGCACAACCACCTCAACCCTGAGGTGAAGAAGTCTTGCTGGACCGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cagattaagatggataaactacttgaggcctgatcttaagagaggaaatttcactgaaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EE: Carmen
P.O. Box 4
                                                                                                                                                                                                                                                                                                                                                                                                                                     Texas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
linear
                                                                                                                        (713)
               double
                                                                                                     789-2679
                                                                                                                                                                                                                                      800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Strawberry Promoters
                                                                                                                           787-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rodriguez,
                                                                                                                                                                                                                                                                       us/09/008,979A
                                                                                                                          .438
                                                                                                                                                              MOBT:058 (38-21(10613)A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 69.8;
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Paralegal, Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .4e-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and Genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 2638;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        216
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
             Ş
                                             밁
                                                                             Ş
                                                                                                             ₽
                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-460-618-2
                                                                                                                                                                                                                                                             US-09-460-618-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 65.5%; Matches 93; Conservative
                                                                                                                                                                          Query Match 6.3%;
Best Local Similarity 65.5%;
Matches 93; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      equence 2, Application US/09460618 atent No. 6235482
                                                                                                                                                                                                                                                                                                                                         TELEFAX: (713) 789-26;
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: MOTELECOMMUNICATION INFORMATION: TELEPHONE: (713) 787-1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         307 tttacttggaaacaaatggtca 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187 tgctgggctgcttagatgtggtaagagttgcagattaagattggataaactacttgaggcc 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     310 GAATATCAAGAGAGGAGAGTTTGCGGAGGATGAAGTTCATTTGATCATCAGGCTTCATAA 369
307 tttacttggaaacaaatggtca 328
                                                                                                                 250
                                                                                                                                               187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    370 GCTTCTAGGGAACAGGTAATTA 391
                                               310 GAATATCAAGAGAGGAGAGTTTGCGGAGGATGAAGTTCATTTGATCATCAGGCTTCATAA
                                                                                 247
                                                                                                                                                                                                                                                                                                                                                                                                         TORNEY/AGENT INFORMATION A.

NAME: Kammerer, Patricia A.

REGISTRATION NUMBER: 29,775

REGISTRATION NUMBER: MOST:058 (38-21(10613)A)
                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: USA
ZIP: 77210-4433
                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCAGGCTTAAACAGATGCAGGAAGAGCTGTAGACTGAGATGGCTGAATTATTTAAAGCC 309
                                                                     tgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcatcaagcttcacag 306
                                                                                                                                   tgctgggctgcttagatgtggtaagagttgcagattaagatggataaactacttgaggcc 246
                                                                                                               TGCAGGCTTAAACAGATGCAGGAAGAGCTGTAGACTGAGATGGCTGAATTATTTAAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Texas
                                                                                                                                                                                                                                                                                                                          469 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conner, Timothy W.
                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carmen Rodriguez, Paralegal, Arnold, White & Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Box 4433
                                                                                                                                                                                                                                                                                             double
                                                                                                                                                                                                                                                                                                                                                                           789-2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Strawberry Promoters and Genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/09/460,618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          us/09/008,979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 9:8e-10;
0; Mismatches 49;
                                                                                                                                                                                           Score 63.6; DB 4;
Pred. No. 9.8e-10;
                                                                                                                                                                              Mismatches
                                                                                                                                                                               49;
                                                                                                                                                                                                              Length 469;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                              Gaps
                                                                                                                 309
                                                 369
                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-485-139-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (703) 836-202
[NFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                   FEATURE
                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      370 GCTTCTAGGGAACAGGTAATTA 391
                                                  OTHER INFORMATION:
                                                                                                                                                                                 OTHER INFORMATION:
                                                                                                                                                                                                                                               LOCATION: 1735..1740 OTHER INFORMATION: /
                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                              LOCATION: 447..452 OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                             LOCATION: 279..284 OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 07-JUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O. Box
CITY: Alexandria
                                                                                                                 LOCATION: 2081..2086
OTHER INFORMATION: /label- XhoI
                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM:
                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
     LOCATION:
                    NAME/KEY:
                                                                   OCATION:
                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , Application US/08485139 5880331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : 4059 base pairs
nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Virgini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Burns, Doane, Swecker & Mathis P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KREBBERS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LEEMANS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                1505..1510
                                                                                                                                                                                                                                                                                                                                                                                                                                             C1 gene of Zea mays
     2669..2674
                                                                2418..2430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (703)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3) 6-2021
) 836-2021
-- NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MALE STERILE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USE OF ANTHOCYANIN GENES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Enno
Mark
                                                                                                                                                                                                                                              /label- AatII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/08/485,139
                                                  /label- SfiI
                                                                                                                                                                                 /label- EcoRI
                                                                                                                                                                                                                                                                                                                /label- EcoRI
                                                                                                                                                                                                                                                                                                                                                                             /label- HpaI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             010830-096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TO MAINTAIN
```

```
; NAME/KEY: - 935..939
; LOCATION: 935..939
; OTHER INFORMATION: /
; OTHER INFORMATION: /
; OTHER INFORMATION: C
US-08-485-139-1
                                                                          US-08-750-357-1
                                                                                              RESULT 14
                                            Sequence 1, Applic Patent No. 6008437
                                                                                                                                                                                                                                                                                                                                                  Query Match 5.6%;
Best Local Similarity 63.2%;
                                                                                                                                                                                                                                                                                                                                     Matches
                               GENERAL INFORMATION:
                                                                                                                                             1413
                                                                                                                                                                                                        1353 CCCAACATCAGGCGCGACATCTCCTACGACGAGGAGGATCTCATCATCCGCCTCCAC 1412
                                                                                                                                                                                                                                                                       1293 - GGTGCAGGTTTGCGTCGGTGCGGCAAGAGCTGCCGGCTGCGGTGGCTGAACTACCTCCGG 1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: -
LOCATION: -
LOCATION: -
OTHER INFORMATION:
OTHER INFORMATION:
OTHER INFORMATION:
                  APPLICANT:
                                                                                                                                                                                                                                                                                        FEATURE
                                                                                                                                                                                                                                      245 cctgatcttaagaggaaatttcactgaagaagaagatgagcttatcatcaagcttcac 304
                                                                                                                                                                         305 agtttacttggaaaca 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
LOCATION: 1078..2134
OTHER INFORMATION: /label= C1
OTHER INFORMATION: /note= "coding region of C1 gene"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 1061..1062
OTHER INFORMATION: //
OTHER INFORMATION: //
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
LOCATION: 1033..1038
OTHER INFORMATION: /label= TATA-Box
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 1..1077
OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: -
LOCATION: 2634..26
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION:
                                                                                                                                                                                                                                                                                                                                     86;
                                                           Application US/08750357
WILLIAMS,
                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1ntron
1430..1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           intron
1211..1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2135..2430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3008..3013
                                                                                                                                                                                                                                                                                                                                                                                                                             /label= C1-S
/note= "TGCAG sequence (in C1 gene) which in
C1-S sequence is changed to TTAGG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           //label= transcript-init
/note= "transcription initiation site"
                                                                                                                                             1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= 3'Cl
/note= "region containing polyadenylation signal
of Cl gene"
Enno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label- PC1
/note- "region containing promoter of Cl gene"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label- HpaI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label-
                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                   Score 56; DB 2;
Pred. No. 6.1e-07;
0; Mismatches 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SnaBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SnaBI
                                                                                                                                                                                                                                                                                                                                     50; Indels
                                                                                                                                                                                                                                                                                                                                                                   Length 4059
                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                 the
                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 13
SEQUENCE CHARACTERISTICS:
LENGTH: 4059 base pairs
TYPE: nucleic acid
                                                                                                                                                                                    OTHER INFORMATION: /1
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: LEEMANS, Jan
TITLE OF INVENTION: USE OF ANTHOCYANIN GENES TO MAINTAIN
TITLE OF INVENTION: WALE STERILE PLANTS
NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                                                                     NAME/KEY: -
LOCATION: 2081..2086
OTHER INFORMATION: /label-
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 0:
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                               FEATURE:
                               NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
LOCATION:
                                                                            NAME/KEY: -
LOCATION: 2634..26
OTHER INFORMATION:
                                                                                                                                        LOCATION: 2669...20
OTHER INFORMATION:
                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                                                                                                     LOCATION: 1505..1510 OTHER INFORMATION: /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: 279..284 OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 21-MAR CLASSIFICATION: 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: P.O. Box CITY: Alexandria
                OTHER INFORMATION:
                                                                                                                                                                                                                                        NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: /label-
                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E: BURNS, DOANE,
P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                447..452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ç
                                                                                              2634..2639
                                                                                                                                                                                                                                                                                                                                                                                                                   1735..1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                               3008..3013
                                                                                                                                                        2669..2674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (703)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene of Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Malcolm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      836-6620
                                                                                                                                                                                                          /label-
                                                                                                                                                                                                                                                                                                                                     /label-
                                                                             /label= SnaBI
                                                                                                                                             /label= SnaBl
                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label= EcoRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label- HpaI
                /label- Hpa]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/08/750,357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SWECKER & MATHIS, L.L.P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      018030-100
                                                                                                                                                                                                          Sfil
                                                                                                                                                                                                                                                                         xhoI
                                                                                                                                                                                                                                                                                                                                     ECORI
                                                                                                                                                                                                                                                                                                                                                                                                    AatII
```

δÃ 밁

밁

В Ş

```
NAME/KEY: 935..939; IOCATION: 935..939; OTHER INFORMATION: OTHER INFORMATION: OTHER INFORMATION: 15-08-750-357-1
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                         ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                              US-08-485-139-5
                                                                                                                                                                                                                                                                            RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match

Best Local Similarity

Matches 86; Conserv
                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                           equence 5, Application US/08485139
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1293 GGTGCAGGTTTGCGTCGGTGCGGCAAGAGCTGCCGGCTGCGGTGGCTGAACTACCTCCGG 1352
                                                                                                                                                                                                                                                                                                                             1413
                                                                                                                                                                                                                                                                                                                                                                                             1353
                                                                                            TITLE OF INVENTION: US
TITLE OF INVENTION: MA
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                            APPLICANT: KREBBERS, Enno
APPLICANT: WILLIAMS, Mark
APPLICANT: LEEMANS, Jan
                                                                                                                                                                                                                                                                                                                                                                                                                         245 cctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaagcttcac 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          185 gctgctgggctgcttagatgtggttaagagttgcagattaagattggataaactacttgagg 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                           305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 1078..2134
OTHER INFORMATION: /label= C1
OTHER INFORMATION: /note= "coding region of C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: /label= 3'Cl OTHER INFORMATION: /note= "region containing polyadenylation signal of Cl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: -
LOCATION: 2135..24
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 1033..1038
OTHER INFORMATION: /label- TATA-Box
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: OTHER INFORMATION:
STATE: Virginia COUNTRY: United States ZIP: 22313-1404
                                 STREET: P.O. Box
CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY:
                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                   agtttacttggaaaca 320
                                                                                                                                                                                                                                                                                                                             AGGCTCCTCGGCAACA 1428
                                                                                                                                                                                                                                                                                                                                                                                           CCCAACATCAGGCGCGGCAACATCTCCTACGACGAGGAGGATCTCATCATCCGCCTCCAC 1412
                                                            E: Burns, Doane,
P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    intron
1211..1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1..1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         935..939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1430..1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1061..1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2135..2430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       intron
                                                                                                                                             Jan
USE OF ANTHOCYANIN GENES TO MAINTAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5.6%;
                                                                                                                              MALE STERILE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label= transcript-init
/note= "transcription initiation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= Ci-S
/note= "TGCAG sequence (in C] gene) which in the Cl-S sequence
is changed to TTAGG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /label- PC1 /note- "region containing promoter of C1 gene"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                Swecker & Mathis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 56; DB 3; L
Pred. No. 6.1e-07;
0; Mismatches 50;
                                                                                                                                PLANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 4059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene"
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                           ž
                                                                                                                                                                                                                                                                                                                                                         δÕ
                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                               Search completed: January 23, 2002, Job time: 5633 sec
```

```
; LOCATION: 884..888
; OTHER INFORMATION:
; OTHER INFORMATION:
OTHER INFORMATION:
US-08-485-139-5
                                                                                                                                                                                          Query Match
Best Local S
Matches 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO: 5:
                                                              1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
1362 AGGCTCCTCGGCAACA 1377
                                                                                                                             1242 GGTGCAGGTTTGCGTCGGTGCGGCAAGAGCTGCCGGCTGCGGTGGCTGAACTACCTCCGG | 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                              305
                                                                                             245
                                                                                                                                              185 gctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactacttgagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 39, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: 2367..2379
OTHER INFORMATION: /
                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: 396..401 OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LASSIFICATION:
                                                              CCCAACATCAGGCGCGGCAACATCTCCTACGACGAGGAGGATCTCATCATCCGCCTCCAC
                           agtttacttggaaaca
                                                                               cctgatcttaagagagaaatttcactgaagaagaagatgagcttatcatcaagcttcac 304
                                                                                                                                                                                          86; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGENT INC.... McGowan, Malcolm K.
McGowan, Malcolm K.
39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleic acid
                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            plasmid pcoL9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Floppy disk
                                                                                                                                                                                                           5.6%;
                              320
                                                                                                                                                                                                                                                                                           /label= C1-S
/note= "TGCAG (in C1) which in C1-S allele replaced with TTAGG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label- EcoRI
                                                                                                                                                                                                                                                                                                                                                                                            /label- Sfil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/08/485,139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             010830-096
                                                                                                                                                                                            0;
                                                                                                                                                                                            Score 56; DB 2;
Pred. No. 6.8e-07;
0; Mismatches 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #1.25
                                                                                                                                                                                                50;
                                                                                                                                                                                                                            Length 4824;
                                                                                                                                                                                            Indels
                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : 14
                                                                                                                                                                                              Gaps
                                                                                                                                                              244
                                                                1361
```

20:22:30

0,

BF64381

EST267115 MtBB01D01 NF058A04E

BF596995 SU94004.Y
BF517838 NXSC1027\_
AU082325 AU082325
BE804204 SI77908 Y
BE805745 SS44608.Y
BE805745 SS44608.Q
AV408163 AV408163
AV408163 AV408163
AU1336697 SS32004.Y
BI421740 SSY532406
AU134006 AU184006
AU184006 AU184006
AU1184006 AU184006
AU173063 AU173093
BE804943 SS35603.Y
BE611947 ST02A01.Y
AU737657 EST339084
AI7377657 EST339084
AI7377648 BULGH1760
AW011253 ST18F02
BAF519041 EST45501
AW064634 ST33805 P
BF519041 EST45501
T42000 5263 Lambda
BF627287 HVSMED001
AU0183276 AU183276
AU183276 AU183276
BE361115 DG1\_70\_A0

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                                                                                                           Result
                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
::
                                                                                                                                                                                                                                                                                                            pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 5
361
295.8
288.6
287.4
283
278
275
261.4
256.8
                                                                                                                                                                                          533.4
                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length:
                                                                                                                                                                                                                           Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-453-387A-1
1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11351937 seqs, 5372889281 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              January 23, 2002, 18:40:17;
53.0
35.9
29.4
28.7
28.6
28.1
27.6
27.3
27.3
25.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenCore version
Copyright (c) 1993 - 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    taacaccgttattcttctc.....aatgcttaattattaaaaaa 1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              em_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_estfun:*
em_esthum:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_estov:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    em_estba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       em_estom:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       em_estin:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gb_est1:*
gb_est2:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  em_estro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     em_estpl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        em_gss_hum:*
em_gss_inv:*
                                                                                                                                                                                                                                                                                                                                                                                                   em_gss_rod:*
em_gss_vrt:*
                                                                                                                                                                                                                                                                                                                                                                                                                                      em_gss_pro:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_gss_pln:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_gss_fun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gb_gss:*
                                                                                                                                                                                                                                                                                                                                                                                   em_gss_other:*
                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000000000
857
927
757
757
526
562
549
549
511
730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  using
                                                                                                                                                                                                                              멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chosen parameters:
                                                                                                                                                                                                                              IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            summaries
                  BF269948
BG445164
BG889982
BE801303
AI771837
AI486301
BE124666
BE802821
AI731905
BG442984
AW775893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WB
                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.5
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Search time 1542.92 Seconds (without alignments) 7006.360 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22703874
 BF269948 GA_ED000
BG4445164 GA_EA002
BG889982 EST515833
BE801303 Sx12204.9
A1771837 EST252937
A1486301 EST254652
BE124666 EST393701
BE802821 Sx45a11.9
A1731905 BNLGH1112
BG442984 GA_EA001
AN775893 EST334958
BF716393 Saa19f01.
                                                                                                                                                                                                                                Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
BF269948
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                       TITLE
                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       254.2
247.4
240.2
239.2
236.4
235
235
235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                233.4
233.4
233.4
233.2
233.2
233.2
231.2
231.2
231.2
231.2
235.2
235.2
235.4
225.4
225.4
225.4
225.4
225.4
225.4
225.4
227.5
227.5
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
227.6
                                                                                                         Clemson University Genomics Institute
Clemson University
100 Jordan Hall, Clemson, SC 29634, USA
Tel: 864 656 7288
Fax: 864 656 4293
Email: rwing@clemson.edu
Seq primer: TAATACGACTCACTATAGGG
High quality sequence start: 4
High quality sequence start: 633.
                                                                                                                                                                                                                                                                                                         Wing,R.A., Frisch,D., Yu,Y., Main,D., Rambo,T., Simmons,J., Henry,D., Wood,T.C., Leslie,A. and Wilkins,T.A.
An integrated analysis of the genetics, development, and evolution of the cotton fiber
                                                                                                                                                                                                                                                                                                                                                                            Gossyplum arboreum

Gukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnollophyta; eudicotyledons; core eudicots;

Rosidae; eurosids II; Malvales; Malvaceae; Gossypium.

1 (bases 1 to 857)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BF269948 857 bp mRNA EST 07-MAR-2001
GA_Eb0006B13f Gossypium arboreum 7-10 dpa fiber library Gossypium arboreum cDNA clone GA_Eb0006B13f, mRNA sequence.
BF269948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gossypium arboreum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BF269948.1
                                                                                                                                                                                                                                                                        Unpublished (2000)
Contact: Wing RA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                quality sequence start: 4 quality sequence stop: 633. Location/Qualifiers
         /organism-"Gossypium arboreum"
/strain-"AKA"
/cultivar-"8400"
/db_xref-"taxon:29729"
                                                                            . . 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GI:11200943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70445
7045
7045
7045
7045
7045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AI897672
AL373528
BF643814
BF596995
BF517838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AW279057
BE804284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AU082322
AU082325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AI727146
AI730655
AW011253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BE804943
BE611947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AU184006
AU173093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AI736697
BI421740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BE052585
AV408163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AI730649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
                                                                                                                                                                                                                         29634, USF
```

BASE COUNT ORIGIN

Query Match Best Local S Matches 622

μ

Local Similarity les 622; Conserv

157 121

61 97

Henry

```
601 agaacccaactgtacagccagcagtggcatgactacagatgaagagcaacaagaacagct
                                                                                                                                                                                                         GCCCAAGAAACGAAATTACGGGCCAACCATGGACAAAAA 789
                                                                                                                                                                                                                                                                      AAAACCCACTTGACCAGCCAGCA-AGGCATTACTTCAGATGAAAAAACAACAAAAAAAG
                                                                                                                                                                                                                                                                                                                                    CCCGAGTCTGGATTTAATTTACAAGAAATTCAATCAAAGTCCACACA---AATTCCTTAT
                                                                                                                                                                                                                                                                                                                                                        caccgaattggatttcagaaactcgcccacatccgtttccaaatccagttccatcaaaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCGAATTGTATTTGAAGAACTCGACCACATAACGTAGCCAATCCAGTTCC-TAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGATCCACAAACTCATTGAGCTTTCAATCAAACGGGCATTACCAACAACAATCACAGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tgatccacaaactcatcgtcctctcaatcaacggcccaataccaacacaggtcacagcccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaacaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAAGCTGCTGGGCTGCTTAGATGTGGTAAGAGTTGCAGATTAAGATGGATAAACTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 caaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactactt 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGACGATCACCTTGTTGTGAAAAGGCTCATACCAACAAAGGTGCCTGGACCAAAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             999acgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggaccaaagagga 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BG445164 927 bp mRNA EST 15-MAR-GA_EA0027B06f Gossypium arboreum 7-10 dpa fiber library arboreum cDNA clone GA_Ea0027B06f, mRNA sequence.
                  Gossypium arboreum Gossypium arboreum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone="GA_Eb0006B13f"
/clone=lib="Gossypium arboreum 7-10 dpa fiber library"
/tissue_type="Fibers isolated from bolls harvested 7-10
dpa"
dpa"
/clone="Fibers isolated from bolls harvested 7-10
/clone="Fibers isolated from bolls harvested 7-10
/clone="Fibers isolated from bolls harvested 7-10
/clone="Fibers isolated from bolls harvested from bolls"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Vector: pBK-CMV; S1te_1: EcoRI; S1 185 c 159 g 219 t 1 others
                                                                 GI:13354816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53.0%;
89.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 533.4; DB 11;
Pred. No. 4e-105;
0; Mismatches 71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Site_2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                857;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4;
                          δã
                                                          밁
                                                                                       Ş
                                                                                                                     밁
                                                                                                                                                   Š
                                                                                                                                                                                     밁
                                                                                                                                                                                                                γ
                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                  Ϋ́
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local s
Matches 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                          411
                                                                                                                       363
                                                                                                                                                                                       303
                                                                                                                                                                                                                   375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                                                                                                                 255
                                                                                                                                                                                                                                                                                                                                                                                 123
                                                                                                                                                                                                                                                                                                                                                                                                                195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              135
                                                                                                                                                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              w
atttcaattacaatgaatttcaattcaagtccaacacagattcccttgaagaacccaact
                                             TTAGAAACGCACCCACCGGTCCTAAAATAAAACCCATTACAACTGCAACCCCATCTTTGA
                                                                    tcagaaactcgcccac---atccgtttccaaatccagttccatcaaaaacccgtctctgg
                                                                                                                ATCGTCCTCTAAATGGAACAGCTAAAGCCA---
                                                                                                                                                                                               actactggaacacacacatcamaagaaagcttataagcagaggaattgatcacamaactc
                                                                                                                                 ategtecteteaateaaaeggeeaataceaacaeagteaeagceeceaeggaattggatt
                                                                                                                                                                           GGAACAAATGGTCTTTGATAGCAGGAAGGTTACCGGGAAGAACAGATAACGAGATCAAGA
                                                                                                                                                                                                                                                                                                                                                                      gaaacaaatggtcattgattgctggaagattaccaggaagaacagataatgagataaaga
                                                                                                                                                                                                                                                                                                         AAAGAGGCAATTTTACTGAAGATGAGGACGAACTTATCATTAAACTTCACGGTTTACTTG
                                                                                                                                                                                                                                                                                                                          agagaggaaatttcactgaagaagaagatgagcttatcatcaagcttcacagtttacttg
                                                                                                                                                                                                                                                                                                                                                                                                                                      TCATTACATCCGTGTCCATGGTGAAGGTTCTTGGCGTTCCCTTCCCAAAGCTGCCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      gttgtgaaaaggctcataccaacgaaaggtgcctggaccaaagaggaagatcaacgcctca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGTGGAAAAAGCACATACCAACAAAGGTGCTTGGACCAAAGAGGAAGACCAACGCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  High quality sequence start: 9
High quality sequence stop: 738
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: rwing@clemson.edu
Seq primer: TAATACGACTCACTATAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tel: 864 656 7288
Fax: 864 656 4293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wing,R.A., Frisch,D., Yu,Y., Main,D., Rambo,T., Simmons,J.,D., Wood,T.C., Leslie,A. and Wilkins,T.A.
An integrated analysis of the genetics, development and every and every analysis of the cotton fiber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clemson University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clemson University Genomics Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Wing RA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids_II; Malvales; Malvaceae; Gossypium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="GA_Ea0027806f"
/clone_lib="Gossypium arboreum 7-10 dpa fiber library"
/tissue_type="Fibers isolated from bolls harvested 7-10 dpa"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /lab_host="E. coli"
/note="Vector: pBK-CMV;
178 c 272 g 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /strain="AKA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db_xref="taxon:29729"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cultivar-"8400"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism-"Gossypium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clemson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 361; DB 1
Pred. No. 6e-68;
D; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29634, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     arboreum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       // Site_1: EcoRI; Site_2: Xhol"
195 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 11;
                                                                                                              -----CACCCACCGAGTTGGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     development and evolution
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    927;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18;
```

Gaps

ω,

62

314

254 122

242

37.4

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

BG445164 BG445164.1 EST.

611

551

RESULT BG445164

DEFINITION

밁 Ş 밁 Ş 밁 Ş 밁 Š

751

밁 · 5 ₽ ð 밁 Ş 밁 Ş 밁 Š 망 Ş 밁 Š В

```
BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                   δô
                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
S
                                      밁
                                                                        8
                                                                                                                밁
                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BG889982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EYWORDS
                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                            Matches 376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        471
 294
                                                                                                                124
                                                                                                                                                     174
                                                                                                                                                                                                                               114
                                                                                                                                                                                          64
                                                                                                                                                                                                                                                                                                         54
                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTA---CCAGCAGTGGCATGACTACGGATGAAGAACAAC 566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gtacagccagcagtggcatgactacagatgaagagcaac 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTTCAAGTACGATGAGTCTCAAGTGAAGGCCAAGTCAGATTCCCTTGAAGGAGGAAACT 530
                                                              actacttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatca
                                                                                                                                        ccctccccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgtt 173
                                                                                                                                                                                                                                                                    AAAGCATGGGACGTTCACCTTGTTGTGAAAAAGCACATACAAATAAAGGAGCATGGACTA
                                                                                                                                                                                                                                                                                        aactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggacca 113
ATTATTTAAGGCCTGATCTCAAAAGAGGGAATTTTACTGAAGAAGAAGAATTGATAA
                                                                                                                  CTCTCCCTAAAGCTGCAGGATTGTCAAGATGTGGAAAGAGTTGCAGATTGAGATGGATAA
                                                                                                                                                                                          AAGAAGAAGACCAACGCCTCATCAATTATATACGTGCTCATGGTGAAGGTTGTTGGCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          van der Hoeven,R., Bezzerides,J., Ewing,E., Cho,J., Chiemingo,A., Bougri,O., Buell,C.R., Ronning,C., Tanksley,S. and Baker,B. Generations of ESTs from dormant potato tubers Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BG889982.1 GI:14267068
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The Institute for Genomic Research Genetics, For clone info: please contact Research Genetics, Division tel 1-800-711-6195, email cdna@resgen.co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BG889982
EST515833 CSTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Cathy Ronning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids I; Solanales; Solanaceae; Solanum.

1 (bases 1 to 757)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Solanum tuberosum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   potato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  primer: M13F-R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           265
                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                    xhol; This library targets genes expressed in dormant tubers. This library was made from sections of dormant tuber, avoiding the buds and epidermis. Tubers were stored for one month post-harvest at 4oC. The tuber was peeled, well away from the surface. Then it was chopped into 1-2 mm cubes and immediately frozen in liquid nitrogen. This library is noted as P4 in Tanksley lab notebooks."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Vector: pBluescript SK(-); Site_1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="dormant tuber"
/dev_stage="one month post-harvest"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_lib-"cSTD"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /db_xref="taxon:4113"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cultivar="Kennebec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Solanum tuberosum"
                                                                                                                                                                                                                                                                                                                                                            29.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               757 bp
Solanum
                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                              Score 295.8; DB 1 Pred. No. 7.1e-54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA EST 30-MAY-2001 tuberosum cDNA clone cSTD16015 5' sequence,
                                                                                                                                                                                                                                                                                                                                              Mismatches 112;
                                                                                                                                                                                                                                                                                                                                                                                 DB 11;
                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . com
                                                                                                                                                                                                                                                                                                                                                                                   757;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ECORI; Site_2:
                                                                                                                                                                                                                                                                                                                                              ω
--
                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                           293
                                                                                                                  . 183
                                                                                                                                                     233
                                                                                                                                                                                                                                                                    63
                                                                                                                                                                                                                                                                                                                                              1;
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
BE801303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                484 ATTTCACAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCACCATCACCACCGCAGTCAAAACCACCACCACCACCACCACCAAAAAACATCAACATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tcacagcccccaccgaattggatttcagaaactcgcccacatccgtttcccaaatccagtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGGCATTGATCCTCAAACTCACCGTCCACCACACACCACTAACTCCCACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gaggaattgatccacaaactcatcgtcctctcaatcaaacggccaata---ccaacacag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAACTGATAACGAAATCAAGAACTATTGGAATACACATATTAAACGAAAACTCATCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccatcaaaaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BE801303 526 bp mRNA EST 21-NOV sr12d04.y1 Gm-c1050 Glycine max cDNA clone GENOME SYSTEM Gm-c1050-128 5' similar to TR:P81395 P81395 MYB-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: est@watson.wustl.edu
This clone is available through: Genome Systems, Inc. 4633 World
Parkway Circle St. Louis, Missouri 63134 For further information
call: (800) 430-0030 or (314) 427-322 FAX:(888) 919-3324 or (314)
427-3324 or contact: clones@genomesystems.com or
info@genomesystems.com web site: www.genomesystems.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Public Soybean EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. I
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BE801303.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Public Soybean EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wylie,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shoemaker, R., Keim, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Rosidae; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Shoemaker R/Public Soybean EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wylle, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Rylle, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Rylle, T., Underwood, K., Steptoe, M., Pape, D., Harvey, N., Pareon, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Pareon, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Pareon, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Pape, D., Pape, D., Harvey, N., Pape, D., Pape, D., Harvey, N., Pape, D., P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Insert Length: 1223

    Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N.
    Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., Waterston, R. and Wilson, R.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 526)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; , mRNA sequence.
                                                                                                                                                 of greenhouse grown plants"
/dev_stage="3 week old"
/lab_host="DH10B"
/note-"Vector: pBluescript II SK+; Site_1: EcoRI; Site_2: XhOI; The Clark NII was constructed and seed was provided by Dr. J. Specht, University of Nebraska (Shoemaker and Specht, 1995). The cDNA library was constructed from mRNA isolated from leaf tissue at various developmental stages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                             /clone="GENOME SYSTEMS CLONE
/clone_lib="Gm-c1050"
                                                                                                                                                                                                                                                                                                                                                                                /organism="Glycine max"
/db_xref="taxon:3847"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:10232415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Std Error:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vodkin,L., Er
,, Hillier,L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Erpelding, J., Coryell, V., Kucaba, T., Martin, J.,
                                                                                                                                                                                                                                                                                                                                                    ij.
                                                                                                                                                                                                                                                                                 various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Louis, MO 63108,
                                                                                                                                                                                                                                                                                                                                                    Gm-c1050-128"
                                                                                                                                                                                                                                                                                    developmental
       developmental stages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-NOV-2000
E SYSTEMS CLONE
RELATED PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Phaseoleae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bowers
, Schurk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Beck, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McCann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                413
                                                                                                                                                                                                                                                                                 stages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ħ
```

week old greenhouse grown plants.

Complementary

y DNA ofa a3'

```
RESULT
AI771837
                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 342; Conser
                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTCACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cagcccccacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGGAATCGACCCTCAAACTCATCGTCCACTCAACGCTGCCTCCGGCACCTCCGGCAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gaggaattgatccacaaactcatcgtcctctcaatcaaacggccaataccaacacagtca 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAACCGATAACGAAATAAAAAACTATTGGAACACTCACATCAAGAGAAAAACTCTACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAAACCTCCATAGCTTACTTGGAAACAAATGGTCTTTGATAGCTGCAAGGTTACCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     actacttgaggcctgatcttaagagaggaaaatttcactgaagaagaagatgagcttatca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ccctccccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTACCTCAGACCTGATCTCAAGAGAGGCCAACTTCACTGAAGAGGAAGATGAACTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCTCCCCAAAGCTGCTGGCTTGCTCAGATGTGGCAAGAGTTGCAGACTCAGATGGATAA
                                                                                                                                                                                                                                                                                                                                                                                     AI771837
AI771837.1
                                                                                                                                                                                                                                                                                                                                                                                                                                         AI771837 562 bp
EST252937 tomato ovary,
CLED3819, mRNA sequence
C.L., Nierman, W., Fraser, C.M., Venter, S.D. and Glovannoni, J.
Generation of ESTs from tomato carpel Unpublished (1999)
                                                                                                                                                                                                            Lycopersicon esculentum
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Asteridae; euasterids I; Solanales; Solanaceae; Solanum;
                                                                          l (bases 1 to 562)
Alcala,J., Vrebalov,J., White,R., Matern,A.L., Vision,T., Holt,I.E.,
Liang,F., Upton,J., Ronning,C.M., Craven,M.B., Fujii,C.Y., Bowman,
C.L., Nierman,W., Fraser,C.M., Venter,J.C., Martin,G.B., Tanksley
                                                                                                                                                                                                                                                                                                                                    tomato.
                                                                                                                                                                                             ycopersicon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              was synthesized from mRNA using a primer consisting of a poly(dT) sequence with a Xhoï restriction site and a 3' anchor. EcoRI adapters were ligated to the blunt-ended cDNA fragments followed by XhoI digestion. The cDNA fragments were directionally cloned into the EcoRI-XhoI restriction site of the pBluescript vector. The ligated cDNA fragments were transformed into DHIOB host cells (GibcoBRI). The library was constructed in cooperation with Dr. Paul Keim's laboratory at Northern Arizona in the part of th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   University."
141 c
                                                                                                                                                                                                                                                                                                                                                                                           GI:5269878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA
TAMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               core 288.6; DB 1:
red. No. 2.6e-52;
Mismatches 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lycopersicon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      103 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         esculentum cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

```
KEYWORDS
SOURCE
                                                                                                             RESULT
AI486301
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                           ρ
                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                 멁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                DEFINITION
                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 339;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                 464
                                                                                                                                                                                                             474
                                                                                                                                                                                                                                           404
                                                                                                                                                                                                                                                                      414
                                                                                                                                                                                                                                                                                                  344
                                                                                                                                                                                                                                                                                                                            354
                                                                                                                                                                                                                                                                                                                                                                                   294
                                                                                                                                                                                                                                                                                                                                                                                                               224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44
                                                                                                                                         σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               aactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaaggtgcctggacca
                                                                                                                                                                                                                                                                                                  actacttgaggcctgatcttaagagagggaaatttcactgaagaagaagaagatgagcttatca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGAAGAAGACCAACGCCTCATCAATTATATACGTGCTCATGGGGAAGGTTGCTGCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgtt
                                                                                                                                                                                 CCACC
                                                                                                                                                                                                             cagcc 478
                                                                                                                                                                                                                                           GTGGCATTGATCCTCAAACTCACCGTCCACTCAACAACAACGCCCACTAACTCCCACACCA
                                                                                                                                                                                                                                                          gaggaattgatccacaaactcatcgtcctctcaatcaaacggccaataccaacacagtca
                                                                                                                                                                                                                                                                                                                  CTCTTCCTAAAGCTGCAGGATTGTCAAGATGTGGAAAGAGTTGCAGATTGAGATGGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ccctccccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGTATGGGACGTTCACCTTGTTGTGAAAAAGCACATACAAATAAAGGAGCATGGACTA
                                                                                                                                                                                                                                                                                                                                                        TCAAACTTCATAGTTTGCTTGGAAACAAATGGTCAGTTATAGCCGGAAGATTACCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                               ATTATTTAAGGCCTGATCTCAAAAGAGGGAATTTTACAGAAGAAGAAGATGAATTGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: CUGI
Clemson University Genomics Institute
Clemson University
100 Jordan Hall, Clemson, SC 29634, US
                                                                  AI486301 447 bp
EST244622 tomato ovary,
CLED8M18, mRNA sequence.
AI486301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: http://www.genome.clemson.edu/orders/index.html
5 prime sequence.
                                       AI486301.1
EST.
Lycopersicon esculentum 
Eukaryota; Viridiplantae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                   468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note-"Vector: pBlueScript SK(-); Site_1: EcoR1; Site_2: Xho1; cLED - Tomato Carpel EST Library. OligodT-primed and directionally cloned cDNA in vector Lamda ZAP II with 5' and 3' ends located at the EcoRI and XhoI sites,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         respectively, Told g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib-"tomato ovary, TAMU"
/tissue_type="carpel"
/dev_stage="5 days pre-anthesis to
/lab_host="XL1-Blue_MRF/"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone="cLED3819"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:4081"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Lycopersicon esculentum"
/cultivar="TA496"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                      GI:4381672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ö,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 287.4; DB 1
Pred. No. 4.8e-52;
                                                                                                mRNA
TAMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                Lycopersicon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 10;
                                                                                                ST 18-MAY-2001
esculentum cDNA clo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 days
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             post-anthesis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                clone
                                                                                                                                                                                                                                                                                                                              413
                                                                                                                                                                                                                                                                                                                                                                                   353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              113
                                                                                                                                                                                                                                                                                                  403
                                                                                                                                                                                                                                                                                                                                                                                                               283
                                                                                                                                                                                                                                                                                                                                                                                                                                           293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

Streptophyta;

Embryophyta; Tracheophyta;

o

```
TITLE
JOURNAL
COMMENT
                                                       RESULT
BE124666
                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                        Š
                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
 ACCESSION
                              DEFINITION
                                             Pocus
Focus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                             294
                                                                                                                                                                                                                                                                                                                                                  164
                                                                                                                                                                                                                                                                                                                                                                             174
                                                                                                                                                                                                                                                                                                                                                                                                         104
                                                                                                                                                                                                                                                                                                                                                                                                                                      114
                                                                                                                                           414
                                                                                                                                                                        344
                                                                                                                                                                                                                                 284
                                                                                                                                                                                                                                                                                          224
                                                                                                                                                                                                                                                                                                                   234
                                                                                                                  404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 aactgatgggacgatcaccttgttgtgaaaaggctcataccaacgaaggtgcctggacca 113
                                                                                                                                                                                                                                                                                                                                                                 ccctccccaaagctgctggctgcttagatgtggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                                                                                                                                                                                                                       aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgtt 173
                                                                                                                                                                                                                                                                                                       actacttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGTATGGGACGTTCACCTTGTTGTGAAAAAAGCACATACAAATAAAGGAGCATGGACTA 103
                                                                                                                                 gaggaattgatccacaaactcatcgtcctctcaatcaaacggcc
                                                                                                                                                                                        TCAAACTTCATAGTTTGCTTGGAAACAAATGGTCAGTTATAGCCGGAAGATTACCTGGAA
                                                                                                                                                                                                                                                CTCTTCCTAAAGCTGCAGGATTGTCAAGATGTGGAAAGAGTTGCAGATTGAGATGGATAA
                                                                                                                                                                                                                                                                                                                                                                                                         AAGAAGAAGACCAACGCCTCATCAATTATATACGTGCTCATGGGGAAGGTTGCTGGCGTT
                                                                                                                  GTGGCATTGATCCTCAAACTCACCGTNCACTCAACAACAACGCC
                                                                                                                                                                         GAACGGATAACGAAATCAAGAACTATTGGAATACACATATTAAACGAAAACTCATTAGTC
                                                                                                                                                                                                                                                                                          ATTATTTAAGGCCTGATCTCAAAAGAGGGAATTTTACAGAAGAAGAAGATGAATTGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alcala, J., Vrebalov, J., White, R., Matern, A.L., Vision, T., Holt, I.E., Liang, F., Upton, J., Ronning, C.M., Craven, M.B., Fujii, C.Y., Bowman, C.L., Nierman, W., Fraser, C.M., Venter, J.C., Martin, G.B., Tanksley
sequence.
BE124666
                           BE124666
EST393701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clemson University Genomics Institute Clemson University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: CUG1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ,C.L., Nierman,W., Fraser,C.M., Venter,J.C., ,S.D. and Giovannoni,J. Generation of ESTs from tomato carpel tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Asteridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Spermatophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: http://www.genome.clemson.edu/orders/index.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lycopersicon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .emson University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jordan Hall, Clemson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Vector: pBlueScript SK(-); Site_1: EcoR1; Site_2:
xhoi; CLED - Tomato Carpel EST Library. OligodT-primed a
directionally cloned cDNA in vector Landa ZAP II with 5
and 3' ends located at the EcoRI and XhoI sites,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               respectively."
                              GVN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="tomato ovary, TAMU"
/tissue_type="carpel"
/dev_stage="5 days pre-anthesis to 5 days
/lab_host="XL1-Blue_MRF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:4081"
/clone="cLED8M18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Lycopersicon
/cultivar="TA496"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /ta; Magnoliophyta; eudicotyledons; core eudicots;
euasterids I; Solanales; Solanaceae; Solanum;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to 447)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28.1%;
81.2%;
                            536 bp
Medicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 283; DB 10;
Pred. No. 4.4e-51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91 g
                            mRNA EST 07-SEP-2000 truncatula cDNA clone pGVN-67A6, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SC 29634, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        esculentum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 447;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 others
                                                                                                                   447
                                                                                                                                             457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                post-anthesis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                         403
                                                                                                                                                                                                                                                            353
                                                                                                                                                                                                                                 34.3
                                                                                                                                                                                                                                                                                          283
                                                                                                                                                                                                                                                                                                                   293
                                                                                                                                                                                                                                                                                                                                                                             233
                                                                                                                                                                                                                                                                                                                                                                                                           163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
                                                                                                                                                                                    γQ
                                                                     δõ
                                                                                                    밁
                                                                                                                            20
                                                                                                                                                          밁
                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                           QΥ
               δÃ
                                             밁
                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                  299
                                             207
                                                                        239
                                                                                                    147
                                                                                                                               179
                                                                                                                                                                                        119
                                                                                                                                                          87
                                                                                                                                                                                                                     27
                                                                                                                                                                                                                                                59
                                                                                                                                                                                                                                                                           332;
```

Ş

Š

Š

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                    atgggacgatcaccttgttgtgaaaaggctcataccaacgaaggtgcctggaccaaagag
cttcacagtttacttggaaacaaatggtcattgattgctggaagattaccaggaagaaca
                                                                                            ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag
                                                                                                                                                                                  cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagattggataaactac
                                                                                                                                                                                                                                                    GAAGATGAACGTCTCATTAACTACATCAAGCTTCATGGGGGAAGGTTGTTGGAGGTCTCTT
                                                                                                                                                                                                                                                                            CTAAGACCTGATCTCAAGAGAGGAAACTTCACTGAACAAGAAGATGATCTTATCATTAAC
                                                                                                                                                            BE124666.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Department of Agronomy and Plant Genetics
University of Minnesota
411 Borlaug Hall, 1991 Upper Buford Circle,
Tel: 612 625 5715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Medicago truncatula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Rosidae; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     More information is available at ... http://chrysie.tamu.edu/medicago Seq primer: SKmod (CTA 9AA CTA 9tg ... Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fedorova,M., Pierson,B.L., Samac,D.A., Vance,C.P., Ga,H., Ellis,L., Town,C.D., Bowman,C.L., Craven,M.B., Holt,I.E. and Fraser,C.M.
ESTs from one month old nitrogen-fixing root nodules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TIGR sequence name: MTCCB03T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: vance004@maroon.tc.umn.
University of Minnesota name:M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         barrel medic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fax: 651-649-5058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Carroll
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    truncatula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 536)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /dev_stage="effective root nodules harvested one month post inoculation with Sinorhizobium meliloti"
/lab_host="E. coli strain XIOLR"
/note="Yector: pBluescript SK:, Site_1: EcoRI; Site_2: XhoI; cDNA was prepared from polyA+ enriched RNA from effective root nodules harvested one month post inoculation with Sinorhizobium meliloti. The cDNA was directionally ligated into the Uni-ZAP XR vector from Stratagene and packaged using Gigapack III Gold packaging extracts. Plasmids containing cDNA inserts were excised from the recombinant lambda-ZAP phage using Ex-Assist helper phage and propagated in XLOLR cells."

81 a 125 c 102 g 128 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cultivar="genotype A
/db_xref="taxon:3880"
/clone="pGVN-67A6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Medicago truncatula"
/cultivar="genotype_A17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tissue_type="N2-fixing root nodules"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone_lib="GVN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:8529223
                                                                                                                                                                                                                                                                                                                                                                                                                                                         27.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P. Vance
                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 278; DB 10;
Pred. No. 5.1e-50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       name:M261534e
                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gAT
                                                                                                                                                                                                                                                                                                                                                                                                                                         90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>ദ</u>
(2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vance, C.P., Gantt, J.S., Craven, M.B., Hansen, T.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 536;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    St.Paul,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of Medicago
                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55108
                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                    146
                                                                                                                                                                                                                                                                                                                                               86
                          358
                                                                                                               298
                                                                                                                                                                                                         238
                                                                                                                                                                                                                                                                                                 178
                                                                    266
                                                                                                                                                            206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peng
                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

۲,

Gaps

1,

94

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
BE802821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      - 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       င္ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCGACCCTCAAACTCATCGGTCACTTAACGACTCAACGACCATCCACCCATAATTCCA 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   attgatccacaaactcatcgtcctctcaatcaaacggccaataccaacacagtcacagcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCACAGCCTACTTGGAAACAAATGGTCCTTAATAGCTGCTAGATTACCAGGAAGAACA 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BE802821 549 bp mRNA EST 21-NOV-2000 sr45all.yl Gm-c1051 Glycine max cDNA clone GENOME SYSTEMS CLONE Gm-c1051-981 5' similar to TR:p81395 p81395 MYB-RELATED PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                         Email: est@watson.wustl.edu
This clone is available through: Genome Systems, Inc. 4633 World
Parkway Circle St. Louis, Missouri 63134 For further information
call: (800) 430-0030 or (314) 427-3222 FAX: (888) 919-3324 or (314)
427-3324 or contact: clones@genomesystems.com or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shoemaker, R., Kelm, P., Vodkin, L., Erpelding, J., Coryell, V., Shoemaker, R., Kelm, P., Vodkin, L., Kucaba, T., Martin, J., A., Bolla, B., Marra, M., Hiller, L., Kucaba, T., Martin, J., Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., I, Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., I, R., Waterston, R. and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BE802821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Washington University School of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Shoemaker R/Public Soybean EST Project Public Soybean EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BE802821.1
                                                                                                                                                                                                                                                                                                                                                   Public
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  314 286 1800
314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;, mRNA sequence.
               //note="Vector: pBluescript II SK+; Site_1: EcoRI; Site_2: //note="Vector: pBluescript II SK+; Site_1: EcoRI; Site_2: XhoI; The cDNA library was constructed from floral meristematic mRNA provided by Dr. Halina Knap of Clemson University. Complementary DNA was synthesized from mRNA using a primer consisting of a poly(dT) sequence with a XhoI restriction site. EcoRI adapters were ligated to the blunt-ended cDNA fragments followed by XhoI digestion. The cDNA fragments were directionally cloned into the EcoRI-XhoI restriction site of the pBluescript vector. The ligated cDNA fragments were transformed into DH10B host cells (GIDCOBRL). This library was constructed in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Soybean EST Project
     cells (GibcoBRL).
laboratory of Dr.
                                                                                                                                                                                                                                                            /clone="GENOME SYSTEMS CLONE ID: Gm-c1051-981"
/clone_lib="Gm-c1051"
                                                                                                                                                                                                                           /tissue_type="floral meristematic
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                /organism="Glycine max"
/db_xref="taxon:3847"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:10233933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Louis, MO 63108,
                                                                                                                                                                                                                                           mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Phaseoleae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Beck, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schurk
                                                              The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ħ
                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
AI731905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                 FEATURES
                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 340
                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ccctccccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          aagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcgtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gaggaattgatccacaaactcatcgtcctctcaatcaaacggccaataccaacagtca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 actacttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGTCACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cagcccccacc 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACCGATAACGAAATAAAAAACTATTGGAACACTCACATCAAGAGAAAACTCTACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAAACCTCCATAGCTTACTTGGAAACAAATGGTCTTTGATAGCTGCAAGGTTACCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTACCTCAGACCTGATC-TCAGAGAGGCAACTTCACTGAAGAGGAAGATGAACTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGAAGAAGACGAACGCCTCATCAACTACATCAAGCTCCATGGTGAAGGCTGTTGGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGGAATCGACCCTCAGACTCATCGTCCACÇCAACGCTGCCTCCGCCACTCCGGCAACCA
                                                                                                                                                                                                                                                                                                                                                                Gossypium hirsutum

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Trachel

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots
                                                                                                                                                                                                                                                                                                                                                                                                                                                             BNLGH111247 Six-day Co
to myb protein 308 - g:
AI731905
AI731905.1 GI:5050757
                                                                                                                                                                   Biology Department
Brookhaven National Laboratory
Upton, NY 11973, USA
Tel: 516-344-3396
Fax: 516-344-3407
                                                                                                                                                                                                                                                              Contact: Ben Burr
                                                                                                                                                                                                                                                                                                                 Rosidae; eurosids II; 1 (bases 1 to 603) Blewitt, M., Matz, E.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                TSE
                                                                                                                                Email: burr@bnlux1.bnl.gov
Seq primer: T3 Primer.
                                                                                                                                                                                                                                                                                 Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                             upland cotton.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                from developing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 b
/organism="Gossypium
/cultivar="Acala Maxx
                                                                                                  1. .603
                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       603 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ი
                                                                                                                                                                                                                                                                                                                                                     II; Malvales; Malvaceae; Gossypium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mkNA EST 11-JUN-1
Cotton fiber Gossypium hirsutum cDNA 5
garden snapdragon, mRNA sequence.
                                                                                                                                                                                                                                                                                                  cotton fiber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. 2.3e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misma.tches
                                                            pium hirsutum"
Maxxa"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 549;
```

Tracheophyta;

σį

similar

999

453 473 413 333 353

393

293 214 233 154

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                            BG442984
                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                        ACCESSION
FEATURES
                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                JOURNAL
                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        123
                                                                                                                                                                                                                                                                                                                                                                                                                 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               119
                                                                                                                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                         10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cocaaagotgotgggctgottagatgtggtaagagttgcagattaagatggataaactac 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATAATGAGATAAAGAATTACTGGAACACACATAAGGAGGAAGCTATTGAACAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCATAGCCTTCTCGGCAACAAGTGGTCTCTTATAGCCGGGAGATTACCAGGAAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTAAGGCTGCCTTCTCCGTTGTGGCAAAAGTTGCAGGCTTCGTTGGATCAACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                        ccca 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   322;
                                                                                                                                                                                                                                                                                                                                                                                                                 ACAA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCGATCCAGCGACTCACAGGCCACTGAGTGAGGCAGGTGTTCATCANGATGTGTCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTAAGACCTGACCTCAAACGTGGCAACTTCACTGAGGAAGAAGATGAACTCATTATCAAG
                                                                                                                                           An 1
Of †
                                                                                                                                                                                                         BG442984 911 bp mRNA EST 15-MAR-2001
GA_EA0019B05f Gossypium arboreum 7-10 dpa fiber library Gossypium arboreum cDNA clone GA_Ea0019B05f, mRNA sequence.
BG442984
BG442984.1 GI:13352636
EST.
Gossypium arboreum.
Gossypium arboreum.
Gossypium arboreum
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Spermatophyta; Magnoliophyta; endicotyledons; core eudicots; Rosidae; eurosids II; Malvales; Malvaceae; Gossypium.
            Email: rwing@clemson.edu
Email: rwing@clemson.edu
Seq primer: TAATACGACTCACTATAGGG
Seq primer: TAATACGACTCACTATAGGG
Seq primer: TAATACGACTCACTATAGGG
                                                                                                                                            Wing,R.A., Frisch,D., Yu,Y., Main,D., Rambo,T., Simmons,J.,
D., Wood,T.C., Leslie,A. and Wilkins,T.A.
An integrated analysis of the genetics, development, and evo
of the cotton fiber
                                                                                        Clemson University Genomics
Clemson University
                                                                Tel:
                                                                           100
                                                                                                                     Contact: Wing RA
                                                                                                                                Unpublished (2000)
                                                                                                                                                                                                (bases 1 to 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               179
                                                 Jordan Hall, Clemson,
: 864 656 7288
: 864 656 4293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
quality sequence stop: 
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /dev_stage="Six days post anthesis"
/lab_host="XL1-Blue"
/note="Vector: pBluescript II KS+"
| 139 c 138 g 143 t 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26.0%;
75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                              SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            261.4; DB 1
No. 1.9e-46;
                                                                                                       Institute
                                                                               29634,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10;
                                                                               USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            603;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                              evolution
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  478
                                                                                                                                                                                        Henry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
```

```
BASE COUNT
ORIGIN
                                                                                                                                                                                              RESULT 1
AW775893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                   δõ
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                   VERSION -
                                                                                                                                                                                   Locus
                                                                                                                                                                                                                                        멍
                                                                                                                                                        ACCESSION
                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                     TITLE
                                                                                                               ORGANISM
 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                         475
                                                                                                                                                                                                                                                            455
                                                                                                                                                                                                                                                                                 415
                                                                                                                                                                                                                                                                                                                          355
                                                                                                                                                                                                                                                                                                                                             335
                                                                                                                                                                                                                                                                                                                                                                 295
                                                                                                                                                                                                                                                                                                                                                                                                          235
                                                                                                                                                                                                                                                                                                                                                                                                                             215
                                                                                                                                                                                                                                                                                                                                                                                                                                                  175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          115
                                                                                                                                                                                                                                                                                                     395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35
                                                                                                                                                                                                          11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G
                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                             aaaagaaagottataagoagaaggaattgatocacaaaottcatcgtcctctcaatcaaacg
                                                                                                                                                                                                                                                                                                                                 tgcagattaagatggataaactacttgaggcctgatcttaagagaggaaatttcactgaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ggtgaaggctgctggcgttccctccccaaagctgctgggctgcttagatgtggtaagagt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         aacaaaggtgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccat
                                                                                                                                                                                                                                                                                 TGCAGGCTTCGTTGGATCAACTACTTAAGACCTGACCTCAAACGTGGCAACTTCACTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGAAGGTTGCTGGCGTTCTCTCCCTAAGGCTGCTGGCCTTCTCCGTTGTGGCAAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321;
                                                                                                                                                                                                                                          475
                                                                                                                                                                                                                                                            455
                                                                                                                                                       sequence.
AW775893
                                                                                                                                                                           AW775893
EST334958
         Fedorova, M., Pierson, B.L., Sa, H., Ellis, L., Town, C.D., Bow Holt, I.E. and Fraser, C.M. ESTs from leaves of Medicago Colletotrichum trifolli
                                                                                Medicago truncatula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; eudicotyledons; core eudicots;
Rosidae; eurosids I; Fabales; Fabaceae; Papillonoideae; Trifolieae
                                                                                                                                    EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                         barrel medic.
                                                                        Medicago.
Unpublished
                                                           (bases 1 to 730)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /lab_host="E. coli"
/note="Vector: pBK-CMV; Site_1:
209 c 198 g 224 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:29729"
/clone="GA_Ea0019805f"
/clone_11b="Gossypium arboreum
/tissue_type="Fibers isolated f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Gossypium arboreum"
/strain="AKA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cultivar-"8400"
                                                                                                                                                                             730 bp
DSIL Medicago
 (2000)
                                                                                                                                               GI:7765706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25.9%;
76.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
Pred.
                                                                                                                                                                                       mRNA
                                                                                                                                                                             truncatula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                        Bowman, C.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      261;
No. 2.
                      truncatula after
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 11;
                                                                                                                                                                              CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7-10 dpa fiber lib;ary"
from bolls harvested 7-10
                                                    Vance, C.P.,
                                           Craven, M.B.,
                                                                                                                                                                              clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EcoRI; Site_2: XhoI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bolls
                                                                                                                                                                             07-SEP-2000
pDSIL-3M20, mRNF
                        inoculation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            harvested
                                                     Gantt,G
                                            Hansen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                    Trifolieae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                       with
                                                                                                                                                                                mRNA
                                           .S., P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         214
                                                                                                                                                                                                                                                                                                       454
                                                                                                                                                                                                                                                                                                                            414
                                                                                                                                                                                                                                                                                                                                                 394
                                                                                                                                                                                                                                                                                                                                                                     354
                                                                                                                                                                                                                                                                                                                                                                                         334
                                                                                                                                                                                                                                                                                                                                                                                                             294
                                                                                                                                                                                                                                                                                                                                                                                                                                 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                     234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154
                                                    Peng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

```
S
                                                                          밁
                                                                                                            Ş
                                                                                                                                             밁
                                                                                                                                                                         Ş
                                                                                                                                                                                                             문
                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Sim
Matches 321;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
            510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                           462
                                                                          450
                                                                                                            402
                                                                                                                                             390
                                                                                                                                                                            342
                                                                                                                                                                                                               330
                                                                                                                                                                                                                                              282
                                                                                                                                                                                                                                                                                270
                                                                                                                                                                                                                                                                                                               222
                                                                                                                                                                                                                                                                                                                                                210
                                                                                                                                                                                                                                                                                                                                                                               162
                                                                                                                                                                                                                                                                                                                                                                                                                 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                  102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            42 aftitgaftittgtaactgafgggacgafcacctfgffggaaaaggcfcafaccaacaaag 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90
          CTCAATCA 517
                                                                                        agcttatmagcagaggamttgatccacamactcatcgtcctctcamtcamacggccamta 461
                                                                                                                                    GATTACCAGGAAGAACAGATAATGAGATAAAGAATTATTGGAACACTCATATAAGAAGAA
                                                                                                                                                       ATGAACTCATCAAACTCCATAGTCTTCTTGGTAACAAATGGTCTTTGATAGCTGGAA
                                                                                                                                                                                                                        atgagettateateaagetteaeagtttaettggaaacaaatggteattgattgetggaa
                                                                                                                                                                                                                                                                                          taagatggataaactacttgaggcctgatcttaagagaggaaatttcactgaagaagaag
                                                                                                                                                                                                                                                                                                                                      GTTGTTGGAGATCTCTCCCTAAAGCAGCTGGCTTACTCCGATGTGGTAAAAGTTGTCGTC
                                                                                                                                                                                                                                                                                                                                                           gctgctggcgttccctccccaaagctgctggtgcttgttagatgtggtaagagttgcagat
                                                                                                                                                                                                                                                                                                                                                                                                                             gtgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaag 161
                                         ccaacaca
                                                                     AGCTTTTGAATAGAGGAATTGACCCTGCTACTCATAGGCCTTTAAACGAAGTTTCTCATT
                                                                                                                                                                                                                                                                       TCCGGTGGATTAACTATCTCAGGCCAGACCTTAAACGTGGTAACTTTACAGAAGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                          GAGCTTGGACAAAAGAAGAAGATGATAGACTTATATCATATTAGGGCACATGGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TIGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Department of Plant Pathology
University of Minnesota
495 Borlaug Hall, 1991 Upper Buford Circle,
Tel: 612 625 1243
Fax: 651 649 5058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: debbys@puccini.crl.umn.edu
Minnesota sequence name:M259226e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Deborah A. Samac Department of Plant Pathology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seq primer: SKmod (CTA gAA CTA gtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               http:,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          More information is available at.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence name: MTFAJ82TK
                                         469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             //chrysie.tamu.edu/medicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cotyledons and primary leaves harvested 5 and 8 days after inoculation with Colletotrichum trifolii. The cDNA was directionally ligated into the Uni-ZAP XR vector from Stratagene and packaged using Gigapack III Gold packaging extracts. Plasmids containing cDNA inserts were excised from the recombinant lambda-ZAP phage using Ex-Assist helper phage and propagated in XLOLR cells. Note: EST may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /lab_host="E. coli strain XLOLR"
/note="Vector: pBluescript SK-; Site_1: EcoRI; Site_2: Xhoi; cDNA was prepared from polyA+ enriched RNA from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_type="leaves infected with Colletotrichum
trifolii"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /dev_stage="cotyledons and primary leaves harvested 5 days after inoculation with Colletotrichum trifolii"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="pDSIL-3M20"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cultivar="genotype A
/db_xref="taxon:3880"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Medicago truncatula"
/cultivar="genotype_A17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="DSIL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              per phage and propagated in of fungal origin. Table 140 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25.5%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 256.8; DB 10;
Pred. No. 1.8e-45;
); Mismatches 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gAT CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 730;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Paul,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MN 55108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                       341
                                                                                                                                      449
                                                                                                                                                                                                      389
                                                                                                                                                                                                                                                                         329
                                                                                                                                                                                                                                                                                                        281
                                                                                                                                                                                                                                                                                                                                         269
                                                                                                                                                                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                                                                          209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
20
                                  밁
                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
                                 36
```

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 1
BF716393
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                Local Si
hes 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This clone is available through: Genome Systems, Inc. 4633 World Parkway Circle St. Louis, Missouri 63134 For further information call: (800) 430-0030 or (314) 427-3222 FAX:(888) 919-3324 or (314) 427-3324 or contact: clones@genomesystems.com or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shoemaker, R., Keim, P., Vodkin, L., Erpelding, J., Coryell, V., A., Bolla, B., Marra, M., Hillier, L., Kucaba, T., Martin, J., Wylle, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Pape, D., Pape, D., Harvey, N., Pape, D., Pape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I; Fabales; Fabaceae; Papilionoideae; Pháseoleae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROTEIN ZM38. ;, mRNA sequence.
BF716393
BF716393.1 GI:12015665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BF716393 603 bp mRNA EST saa19f01.yl Gm-c1058 Glycine max cDNA clone GE ID: Gm-c1058-1801.5' similar to SW:MYB3_MAIZE
                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Public Soybean EST Project
Washington University School of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Shoemaker R/Public Soybean EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    info@genomesystems.com web site: www.genomesystems.com
High quality sequence stop: 413.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       soybean
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M.,
                                                                                                                                                                                                                                                                  189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 603)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 314 286 1800
314 286 1810
1: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Forest Park Parkway, Box 8501,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Waterston, R. and Wilson, R. ic Soybean EST Project
            Conservative
                                                                                                                                                                                                                                                                                                                                                      /note-"Vector: pBluescript II SK+; Site_1: EcoRI; $ite_2: XhoI; The cDNA ilbrary was constructed from mRNA isolated from hypocotyl tissue of 2 week old etiolated seedlings for PI468916. Complementary DNA was synthesized from mRNA using a primer consisting of a poly(dT) sequence with a XhoI restriction site. EcoRI adapters were ligated to the blunt-ended cDNA fragments followed by XhoI digestion. The cDNA fragments were directionally cloned into the EcoRI-xhoI restriction site of the pBluescript vector. The ligated cDNA fragments were transformed into DHIUB host cells (Gibco BRL). This library was constructed in the
                                                                                                                                                                                                                                                     laboratory of Dr. Randy Shoemaker university. "
149 c 133 g 132 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tlssue_type="Hypocotyl, 2 week old seedlings, etiolated"
/lab_host="DHIOB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="GENOME SYSTEMS CLONE ID: Gm-c1058-1801"
/clone_lib="Gm-c1058"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Glycine max"
/db_xref="taxon:3847"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                  25.4%;
0;
    Score 255.4; DB 1
Pred. No. 3.8e-45;
0; Mismatches 111
                                                                                        DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Louis,
                                                                                                                                                                                                                                                                                                                                         a t
    Indels
                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENOME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JAN-2001
GENOME SYSTEMS CLONE
E P20025 MYB-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MO 63108,
                                                                                        603;
    ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       vector. The
        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Phaseoleae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Khanna
Beck,C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McCann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bowers
        0
```

GTTAAGTATGGGAAGGTCCCCTTGCTGAGAAAGCTCACAAAACAAAGGTGCATGGAC caaagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaaggctgctggcg

D

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AI897672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            156 TTCACTCCCCAAAGCCGCCGGCCTTCTCCGGTGCGCCAAGAGCTGCCGTCTCCGGTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAAAGAAGAAGATGACAGACTCATATCTTATATTCGAGCTCACGGAGAAGGCTGCTGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ttccctccccaaagctgctgggctgcttagatgtggttaggatttgcagatttaagattggat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            aaactacttgaggcctgatcttaagagaggaaatttcactgaagaagaagatgagcttat 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACAACTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cacagececcace 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGAGGAATCGACCCTGCTACTCATAGGCCACTCAACGAAGCTGCTTCTGCTGCAACTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATCAAACTCCACAGTCTCCTCGGTAACAAGTGGTCTTTGATAGCTGGAAGATTGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAACTACCTCCGCCCCGACCTCAAAAGAGGTAACTTTACCGAAGAAGAAGATGAACTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A1897672 580 bp mRNA
EST267115 tomato ovary, TAMU
CLED30E23, mRNA sequence.
A1897672
                                                                                                                                                                                                                                                     Email: http://www.genome.clemson.
5 prime sequence.
                                                                                                                                                                                                                                                                                                                                             C.L., Nierman, W., Fraser, C.M., Vence, S.D. and Giovannoni, J. Generation of ESTs from tomato carpel
                                                                                                                                                                                                                                                                                                                                                                               1 (bases 1 to 580)
Alcala, J., Vrebalov, J., White, R., Matern, A.L., Vision, T., Holt, I.E., Llang, F., Uptoh, J., Ronning, C.M., Craven, M.B., Fujii, C.Y., Bowman, Llang, F., Uptoh, J., Ronning, C.M., Venter, J.C., Martin, G.B., Tanksley, C.L., Nierman, W., Fraser, C.M., Venter, J.C., Martin, G.B., Tanksley
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Asteridae; euasterids I; 'Solanales; Solanaceae; Solanum;
                                                                                                                                                                                                                                                                                                                           Contact: CUG:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lycopersicon esculentum
                                                                                                                                                                                                                                                                                                                                       Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                         Lycopersicon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AI897672.1 GI:5603574
                                                                                                                                                                                                                                                                                 100 Jordan Hall, Clemson,
                                                                                                                                                                                                                                                                                            lemson University Genomics Institute
                                            /note-"Vector: pBlueScript SK(-); Site_1: EcoR1; Site_2: Xho1; CLED - Tomato Carpel EST Library. OligodT-primed at directionally cloned cDNA in vector Landa ZAP II with 5 and 3' ends located at the EcoRI and XhoI sites, respectively."
                            respectively.
                                                                                                          /clone_lib-"tomato ovary, TAMU"
/tissue_type-"carpel"
/dev_stage="5 days pre-anthesis to
/lab_host-"XL1-Blue MRF/"
                                                                                                                                                                                              /organism="Lycopersicon/cultivar="TA496"
                                                                                                                                                                   /db_xref="taxon:4081"
/clone="cLED30E23"
                                                                                                                                                                                                                                       ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        468
                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lycopersicon esculentum cDNA clone
                                                                                                                                                                                                                                                                   29634, USA
nson.edu/orders/index.html
                            157
                                                                                                                                                                                                              esculentum"
                                                                                                                                                                                                                                                                                                                                                        tissue
                                                                                                                            տ
                                                                                                                          days post-anthesis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155
                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 1
AL373528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ρ
                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local s
Matches 316
                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        al Similarity
316; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
AL373528
                                                                                                                                                                                                                                         Unpublished (2000)
Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                           barrel medic.
                                                                                                                                                                                                                                                                                                                                                                                                                                            EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL373528
MtBB01D01F1
                                                                                                                                                                                                                                                                                  Medicago truncatula
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL373528.1
                                                                                                                                                                                                                                                                      nodules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                          /db_xref="taxon:3880"
/clone="MtBB01D01"
/tissue_type="symbiotic
/dev_stage="harvested 4
                            /clone_lib="MtBB"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  468
MtBB N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 bp mRNA
Medicago tr
                                                                                                                                                                                                                                                                                    ESTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                     from
```

```
atgggacgatcaccttgttgtgaaaaggctcataccaacaaggtgcctggaccaaagag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               attgatccacaaactcatcgtcctctcaatcaaacggccaataccaacacagtcacagc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gataatgagataaagaactactggaacacadacatcaaaagaaagcttataagcagagga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGATGAAAGACTAATTTCTTACATTAGAGCTCATGGTGAAGGTTGTTGGAGGTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gaagatcaacgcotcatcaactacatccgtgtccatggtgaaggctgctggcggttccctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTGATCCAACAACACATAGATCAATCAATGATCCTACTACAATACCAAAAGTTACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATAACGAGATAAAAAACTATTGGAACACACATATAAGACGAAAGCTCTTGAGTCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCCATAGCCTCCTTGGAAACAAGTGGTCGCTTATAGCAGGAAGATTACCAGGAAGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTAAGACCTGACCTTAAACGTGGTAACTTTACTGAAGAAGAAGATGAACTCATTATCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ttgaggcctgatcttaagagaggaaatttcactgaagaagaagaagatgagcttatcatcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cccaaagctgctgggctgcttagatgtggtaagagttgcagattaagatggataaactac
                                                                                                                                                                                                                                       Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr Neb: www.genoscope.cns.fr
Contact: Pascal Gamas and Etienne-Pascal Journet, Laboratoire
Biologie Moleculaire des Relations Plantes-Microorganismes,
CNRS-INRA, BP 27 31326 Castanet-Tolosan Cedex, France (Email:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 468)

Journet, E.P., Crespeau, H., van-Tuinen, Niebel, A., Carreau, V., Chatagnier, O., V. and Gamas, P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Medicago truncatula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; eudicotyledons; core eudicots;
Rosidae; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae
                                                                                                                                                                        /organism="Medicago truncatula"
/cultivar="Jemalong"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 254.2; DB 10; Pred. No. 6.8e-45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         truncatula
                                                                                                                                                                                                                                                                                                                                                                                                                                           Sinorhizobium
root nodules"
days post ino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ,D., Gouzy,J.,
Kahn;D., Gian
    post inoculation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ST 03-AUG-2000 clone MtBB01D01 T3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                             meliloti-induced root
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gianinazzi-Pearson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
         With
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Trifolieae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

```
Query Match
Best Local S
Matches 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         agcttataagcagaggaattgatcc 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gtgcctggaccaaagaggaagatcaacgcctcatcaactacatccgtgtccatggtgaag 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGAACTCATCAAACTCCATAGTCTTCTTGGTAACAAATGGTCTTTGATAGCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCGGTGGATTAACTATCTCAGGCCAGACCTTAAACGTGGTAACTTTACAGAAGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gctgctggcgttccctccccaaagctgctgggctgcttagatgtggtaagagttgcagat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCTTGGACAAAAGAAGAAGATGATAGACTTATATCATATATTAGGGCACATGGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atttgattttgtaactgatgggacgatcaccttgttgtgaaaaggctcataccaacaaag 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCTTTTGAATAGAGGAATTGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATTACCAGGAAGAACAGATAATGAGATAAAGAATTATTGGAACACTCATATAAGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTGTTGGAGATCTCTCCCTAAAGCAGCTGGCTTACTCCGATGTGGTAAAAGTTGTCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            299;
Torres-Jerez, I., Scott, A.D., Harris, A.R., Gonzale Flores, H.R., Inman, J.T., Weller, J.W. and May, G.D. Expressed Sequence Tags from the Samuel Roberts N Center for Medicago Genomics Research Unpublished (2000)
                                                                                                                                Medicago ....runcatula
Medicago truncatula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Epermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Spermatophyta; Magnoliophyta; eddicotyledons; core eudicots;
Spermatophyta; Magnoliophyta; Pabaceae; Papillonoideae; Trifolieae
                                                                                                                                                                                                                                                                                                       EST MRNA EST NP058A04EC1F1033 Elicited cell culture Medicago clone NF058A04EC 5', mRNA sequence.

BF643814
                                                                                                                                                                                                                                                                                       BF643814.1 GI:11908939
                                                                                                                                                                                                                                              barrel medic
                                                                                                      (bases 1 to 545)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note-*Vector: pBluescript pSK; Site_1: EcoRI; Site_2: XhoI; Plants were grown in an aeroponic chamber on nitrogen-rich medium for 21 days. Three days before inoculation with Sinorhizobium meliloti, the medium was replaced by N-free medium. Root nodules (+ short adjacent root segments) were harvested 4 days post inoculation. CDNA was prepared from polyA+ enriched RNA. The cDNA was directionally ligated into Uni-zap XR vector from directionally ligated into Uni-zap XR vector from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mass-excised from phage stocks using ExAssit helper phage and propagated in SOLR cells. Clone ordering and sequencing was performed by the Centre National de Sequencage (Genoscope, Evry, France)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stratagene and packaged using Gigapack Gold packaging extracts. Plasmids containing cDNA inserts were
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sinorhizobium meliloti"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 247.4; DB 10;
Pred. No. 2.1e-43;
0; M1smatches 86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       463
                                                                                    Gonzales, R.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                    truncatula
                                                                                                                                                                                                                                                                                                                                                                           20-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                      Bell,C
                                                                                                                                                                                                                                                                                                                                                    CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                         Ş
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                Ω
                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                     ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QΥ
                      Search completed: January 23, Job time: 4427 sec
                                                                                                                                  밁
```

Š

밁 Ş В Ş 밁 Ş

139

102

79

BASE COUNT

ACCESSION VERSION

KEYWORDS

ORGANISM

REFERENCE AUTHORS

COMMENT

JOURNAL TITLE

19:54:04

RESULT 1 BF643814

DEFINITION

Ş

342 319

밁 Ş 밁

> 282 259 222 199 162

S 밁

402 379

밁

439

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                              131
                                   551
                                                                        421
                                                                                                            491
                                                                                                                                                 361
                                                                                                                                                                                      431
                                                                                                                                                                                                                                                               371
                                                                                                                                                                                                                                                                                                                                                                                                                251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           191
481
                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cttaagagaggaaatttcactgaagaagaagatgagcttatcatcatcaagcttcaccagttta
GTATT 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTATTAACTACATCAAACAACAAGGAGAAGGTTGCTGGCGTTCTCCTTAAAGCCGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTGCTGTGAAAAAACAACACACAAACAAAGGTGCTTGGTCTAAGGAAGAAGAAGAACGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gggctgcttagatgtggtaagagttgcagattaagatggataaactacttgaggcctgat
                                   gattt 555
                                                                        GCAACAACCACCTCTGCAGAAGCTGCTTCTCCTACAATGGTTGTAAATAATAATCCTCCG
                                                                                                                                                                                  actcatcgtcctctcaatcaaacggccaataccaacacagtcacagcccccaccgaattg
                                                                                                                                                                                                                          AAGAACTATTGGAACACTCACATCAAACGCAAACTCTATAGCCGTGGAATTGATCCTACA
                                                                                                                                                                                                                                                                                                                                                                             CTTAAGCGTGGAAATTTCACTCACGAAGAAGATGAACTTATCATCAGCCTCCATGCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCTTGGCAAGATGTGGAAAAAGCTGCAGATTGAGATGGATCAATTATCTCAGACCTGAT
                                                                                                        gatttcagaaactcgcccacatccgtttccaaatccagttccatcaaaaacccgtctctg
                                                                                                                                                 ACACATCAGCCACTCAAAACCCTCTCCGGTACCGCTGCCGCTTCAACCGGCACTTCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: radixon@noble.org
Insert Length: 545 Std Error: 0.00
Plate: 058 row: A column: 04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2510 Sam Noble Parkway, Ardmore,
Tel: 580 221 7302
Fax: 580 221 7380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The Samuel Roberts Noble Foundation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    primer: TCACACAGGAAACAGCTATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="Cell cultures derived from root tissues"
/dev_stage="Cell suspensions were subcultured every 14
days. Cells were induced six days after subculture"
/note="Vector: Lambda Zap; Cells were induced with yeast
cell wall extracts equivalent to 50ug/ml glucose in the
final concentration. Samples were taken at 0.5, 1, 12 and
24 hours after induction. Equal amounts of RNA from each
time point were pooled and used for mRNA isolation."
a 139 c 107 g 118 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Medicago truncatula"
/db_xref="taxon:3880"
/clone="NF058A04EC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_lib="Elicited cell culture"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 240.2; DB 11;
Pred. No. 7.2e-42;
0; Mismatches 153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73402,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , 'S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                  310
                                                                                                                                                                                      490
                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   190
                                                                          480
                                                                                                             550
                                                                                                                                                 420
```

0

and

**4** .5

```
OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
Perfect score:
                                                                                                                                                                                                                                       Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
::
                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                    1567.5
                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length:
                                                                                                                                                                                                                                       Query
Match
                                                           48.1
48.1
48.1
45.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      522463 seqs, 74073290 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MGRSPCCEKAHTNKGAWTKE.....RNCQNSNSNGFYSYCRPLDS 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-453-387A-2
1584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           January 23, 2002, 20:20:42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A_Geneseq_1101:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version Copyright (c) 1993 - 2000
                                                                                                                                                                                                                                                                                                                                                                                                            /SIDSB/gcgdata/geneseq/geneseqp/AA1986.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1986.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1987.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1989.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1989.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1990.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1992.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1993.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1993.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1995.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1996.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1997.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1999.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1999.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1999.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1999.DAT: *
/SIDSB/gcgdata/geneseq/geneseqp/AA1999.DAT: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /SIDS8/gcgdata/geneseq/geneseqp/AA1980.DAT:*
/SIDS8/gcgdata/geneseq/geneseqp/AA1981.DAT:*
/SIDS8/gcgdata/geneseq/geneseqp/AA1982.DAT:*
/SIDS8/gcgdata/geneseq/geneseqp/AA1983.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /SIDS8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /SIDS8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIDS8,
                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000000000
                                                                                              236
236
236
236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gcgdata/geneseq/geneseqp/AA1984.DAT:
/gcgdata/geneseq/geneseqp/AA1985.DAT:
                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                           븅
                                                           AAB33306
AAG32956
AAE02476
                                                                                                                   AAB82481
AAG30441
AAG08529
AAG49909
AAB67842
                                         AG30442
                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Search time 67.35 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (without alignments)
323.349 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   522463
Arabidopsis thalia
Arabidopsis thalia
Arabidopsis thalia
Amino acid sequenc
Pinus radiata tran
Arabidopsis thalia
Arabidopsis thalia
Arabidopsis thalia
Pinus radiata tran
Arabidopsis thalia
                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                  Cotton transcripti
```

533	533.5	534.5	536	539.5	539.5	539.5	541	543	548	548	553.5	554:5	555.5	562	564	565	565	584.5	595	604	608.5	620.5	626.5	646	650	650	665.5	674.5	676.5	681.5	681.5	681.5	684
33.6	•	•	•	34.1	٠	•	•	•	34.6	•	-	•	•	•	•		•	•	37.6	•												43.0	
109	148	324	192	362	350	119	266	414	266	266	176	345	412	391	107	107	107	153	122	139	201	258	226	171	145	.125	226	212	144	278	269	σ	274
21	21	22	21	22	21	21	22	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	22	21	21	21	21	21	21	21	22	21	22
AAB33186	AAB33044	AAE01923	AAB33255	AAE01937	AAG48107	AAB33033	AAE01890	AAG29245			AAB33283	AAG34523		AAB33304	AAB33275	AAB33289	AAB33201	AAB33239	AAG21226	AAB33036	AAG53154	AAG29949	AAB82482	AAB33246	AAG32926	AAG32927	AAB33301	AAG53153	AAB33305	994	AAE02486	994	AAE02485
Eucalyptus grandis	ata tra	thali	grand	Arabidopsis thalia	thal	þ		thal	thal	thal	ta tr	0	radiata tra	radiata	radiata		ta	gra	Zea mays protein f	-24	opsis tr		Cotton transcripti	tus ¢	Zea may's protein f	pro	diata tra	ţ,	iat	Arabidopsis thalia	thal	Arabidopsis thalia	thal

## ALIGNMENTS

```
RESULT
AAB82481
                                                                 WPI; 2001-397938/42.
N-PSDB; AAF90594.
                                 Wilkins TA;
                                                                                                                       07-JUN-2001.
                                                                                                                                          WO200140250-A1
                                                                                                                                                                                                                               Gossypium hirsutum cv. Acala SJ-2.
                                                                                                                                                                                                                                                     GhMYB 1; MYB; cotton; transcription factor; transgenic plant.
                                                                                                                                                                                                                                                                           Cotton transcription factor GhMYB 1.
                                                                                                                                                                                                                                                                                                                        AAB82481;
                                                                                                                                                                                                                                                                                                                                            AAB82481 standard; Protein;
                                                   (REGC ) UNIV CALIFORNIA.
                                                                           02-DEC-1999;
                                                                                                 01-DEC-2000; 2000WO-US32731
                                                                                                                                                                                                 Misc-difference 44.
                                                                                                                                                                                                                                                                                                  22-AUG-2001
                                                                                                                                                                                                                                                                                                 (first entry)
                                                                          99US-0453387
                                                                                                                                                                /note= "deduced sequence from GhMYB 1 cDNA
has a Gly residue between residues
and 45 of the present sequence"
                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                              293
                                                                                                                                                                                                                                                                                                                                              A
```

```
RESULT 2
AAG30441
ID AAG30441 standard; Protein; 257 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is that of cotton MYB transcription factor CC GhAYB 1. The protein includes a highly conserved N-terminal CC DNA-binding domain, and a non-conserved C-terminal transcriptional CC regulatory domain. It also contains a Cys-rich domain similar to a CZ ling finger motif. The sequence was deduced from GhMYB 1 cDNA CC isolated from a Gossypium hirsutum cv. Acala SJ-2 3-day pre-anthesis CC ovule cDNA library. GhMYB 1 transcripts are relatively abundant and CC appear to be expressed in all tissues examined. A claimed method CC of modulating transcription in a plant involves introducing into the plant a recombinant expression cassette comprising a promoter CC operably linked to a heterologous polynucleotide encoding a MYB protein, especially GhMYB 1 or GhMYB 6. The plant is especially a CC cotton plant, and the promoter directs expression of the polynucleotide in cotton fibres or roots. Valuable phenotypes can be conferred on the plant by this method, e.g. increased fibre quality, alteration of root architecture, and enhanced growth. The GhMYB 1 game is particularly useful for increasing levels of CC quality, alteration of plant fibres to increase fibre yield, length, attempts and fineness.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Simi
Matches 293;
                                                                                                                                                                               Arabidopsis thaliana protein fragment SEQ ID NO: 36393.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Modulating transcription in plants for improving cotton fiber quality, comprises introducing a recombinant expression cassette comprising a promoter operably linked to a sequence encoding a MYB polypeptide -
                        EP1033405-A2
                                                             Arabidopsis thaliana
                                                                                                                     Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter;
                                                                                                                                                                                                                          17-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 5; Page 41; 50pp; English.
                                                                                                       termination sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19
                                                                                                                                                                                                                                                                                                                                                                                               IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESK 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mgrspccekahtnkgawtkeedgrlinyirvhgegcwrslpkaa-llrcgkscrlrwiny 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              idpqthrplnqtantntvtapteldfrnsptsvsksssiknpsldfnynefqfksntdsl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 99.7
93; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           293 AA;
                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.0%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1567.5; DB 22; Pred. No. 5.2e-141; 0; Mismatches 0; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                                     PR PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-MAY-1999
21-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-MAY-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-SEP-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27 - MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAR-1999;
29-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-FEB-2000;
                                                                                                                                                                                                                      18-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14 - MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14 - MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0123548.
99US-0123548.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000EP-0301439
99US-0140353.
99US-0140354.
99US-0140695.
99US-0140693.
99US-0141207.
99US-0141207.
99US-0141842.
99US-0142154.
                                                                                                                                                                                 99US-01
99US-01
                                                                                                                                                                                                                                           990S-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-01
99US-01
                                                                                                                                                                                                                          99US-0
                                                                                                                                                                                                                                                                                                                                            99US-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0139452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0-sn66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9908-01
                                                                                                                                                                                                                                                                                                                                                                99US-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0
```

Ş 밁 Ş

밁

X P X O X R R R X D X D X A X I D

Ş

밁 Ş

```
RESULT
AAG08529
ID AAG0
XX
AC AAG0
XX
DT 17-C
XX
DE Arab
                                                                                                                                                                                                                                                밁
                                                                                       Ω
                                                                                                       及
                                                                                                                  Ωy
                                                                                                                                  밁
                                                                                                                                              Q
                                                                                                                                                             g
                                                                                                                                                                         QΥ
                                                                                                                                                                                        밁
                                                                                                                                                                                                     Q_{\underline{Y}}
                                                                                                                                                                                                                           Query Match
Best Local :
                                                                                                                                                                                                                    Matches 160;
                                                                                                                                                                                                                                              25-OCT-1999;
25-OCT-1999;
25-OCT-1999;
26-OCT-1999;
26-OCT-1999;
26-OCT-1999;
28-OCT-1999;
28-OCT-1999;
29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                       14-OCT-1999;
18-OCT-1999;
21-OCT-1999;
21-OCT-1999;
21-OCT-1999;
21-OCT-1999;
21-OCT-1999;
21-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-SEP-1999;
24-SEP-1999;
28-SEP-1999;
29-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                     14 -OCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-OCT-1999
Arabidopsis thaliana protein fragment SEQ ID NO: 6103
              17-OCT-2000
                           AAG08529;
                                         AAG08529
                                                                                                                                                                                                                                                                                                                                                                                                              14-0CT
                                                                                                                                                                                                                                                                                                                                                                                                                     14-0CT
                                                                                                                                                                                                                                                                                                                                                                                                                                   13-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-0CT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                           13-0CT
                                                                          161
                                                                                                                                  121
                                                                                                                                                121
                                                                                                                     181
                                                                                                                                                             61
                                                                                                                                                                          61
                                                                                                                                                                                                      ۳
                                                                                                                                                                                       reeigmvnnc-essgttsekd----
                                                                                                                  EEP-----NCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIG-IVSADSSR-VSN
                                                                                                                                  -1999;
-1999;
                                                                                                                                                                                                                           Similarity
                                          standard;
                                                                                                                                                                                                                    Conservative
             (first entry)
                                                                                                                                                                                                                                              9908-0157117
9908-0157175
9908-0157865
9908-015869
9908-0158232
9908-0158232
9908-0158233
9908-0158233
9908-0159233
9908-0159233
9908-0159231
9908-0159638
9908-0159638
9908-0160767
9908-0160768
9908-0160768
9908-0160815
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
9908-0161406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        990S-0155
990S-0155
990S-0156
                                         Protein; 236 AA
                                                                                                                                                                                                                           48.5%;
                                                                                                                                                                                                                           Score 768;
Pred. No. 5.
                                                                                                     ----ygneedwvlnlelsvgpsyryestrkvsv
                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                   DB 21;
5.9e-65;
les 53;
                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                     Indels
                                                                             253
                                                                                          281
                                                                                                                                                                                                                                   257;
                                                                                                                                                                                                                     42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2757
                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                       60
                                                                                                        209
                                                                                                                     233
                                                                                                                                   160
                                                                                                                                                 180
                                                                                                                                                               120
                                                                                                                                                                            120
                                                                                                                                                                                          60
```

7;

-0146389 -0147038 3-0146386. 3-0146388.

-0145951

99US-0147192. 99US-0147260. 99US-0147303. 99US-0147204. 99US-0147302. 99US-0147192. 99US-0147260.

28-JUL 02-AUG 02-AUG 02-AUG 03-AUG

23-JUL-23-JUL-26-JUL-27-JUL-27-JUL-27-JUL-

3-0145224. 3-0145276.

21-JUL-1999 21-JUL-1999 21-JUL-1999 22-JUL-1999 22-JUL-1999 22-JUL-1999 22-JUL-1999 23-JUL-1999

990S-0145088. 990S-0145085. 990S-0145087. 990S-0145089. 990S-0145192. 990S-0145145. 990S-0145218.

19-JUL-1999; 19-JUL-1999; 19-JUL-1999;

99US-0144333. 99US-0144334. 99US-0144335. 99US-0144352.

S-0144335. S-0144352. S-0144632.

9905-01. 9905-0144332. 9905-0144332. 9905-0144333.

20-JUL 20-JUL-1999 20-JUL-1999

99US-0144814 99US-0145086

-0144884

13-JUL-1999 14-JUL-1999 15-JUL-1999 16-JUL-1999 16-JUL-1999 19-JUL-1999 19-JUL-1999

99US-0143624 99US-0144005 99US-0144085 99US-0144086 99US-0144325 99US-0144331

-JUL-1999;

99US-0142390. 99US-0142803. 99US-0142920. 99US-0142977. 99US-0143542.

04-AUG-1999 05-AUG-1999 05-AUG-1999 06-AUG-1999 06-AUG-1999 09-AUG-1999 11-AUG-1999 11-AUG-1999 11-AUG-1999 13-AUG-1999 13-AUG-1999 13-AUG-1999 13-AUG-1999 16-AUG-1999 17-AUG-1999 18-AUG-1999 18-AU

990S-0147416.
990S-0147935.
990S-0148171.
990S-0148841.
990S-0148868.
990S-014915.
990S-0149726.
990S-0149723.
990S-0149929.
990S-0149929.
990S-0149930.
990S-0150666.
990S-015066.
990S-0151066.
990S-015106.
990S-015106.
990S-015106.
990S-015106.
990S-015106.
990S-015106.
990S-015106.
990S-015106.

_	H
	_
	=
•	_
	Œ

יסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיס	X X X X X X X X X X X X X X X X X X X
2 - JUN - 199 2 - JUN - 199 2 - JUN - 199 3 - APR - 199 5 - APR - 199 6 - APR - 199 6 - APR - 199 6 - APR - 199 7 - APR - APR - 199 7 - APR -	Protein identification; hybridisation assay; ge termination sequence. Arabidopsis thaliana. Ep1033405-A2.  06-SEP-2000; 2000EP-030 25-FEB-1999; 99US-012 05-MAR-1999; 99US-012 25-MAR-1999; 99US-012 25-MAR-1999; 99US-012 25-MAR-1999; 99US-012 26-MAR-1999; 99US-012 26-MAR-1999; 99US-012 26-MAR-1999; 99US-012 26-ARR-1999; 99US-012 26-ARR-1999; 99US-012 26-ARR-1999; 99US-012 26-ARR-1999; 99US-012 26-ARR-1999; 99US-012 27-MAR-1999; 99US-012 28-MAR-1999; 99US-012 29-MAR-1999; 99US-012 20-ARR-1999; 99US-012
9908-013008-013008-9908-013008-013008-9908-013008-013008-9908-013008-013008-9908-013008-013008-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-013248-9908-0133248-9908-9908-0133248-9908-9908-0133248-9908-9908-0133248-9908-9908-9908-9908-9908-9908-9908-99	tification; signa n assay; genetic sequence.  thaliana.  thaliana.  thaliana.  2000EP-0301439. 99US-0123180. 99US-0123180. 99US-0125788. 99US-0126264. 99US-0126785. 99US-0126785. 99US-0126785. 99US-01278714.
	n; signal transduction pathway; metabolic genetic mapping; gene expression control;  genetic mapping; gene expression control;  123180. 1123180. 1123548. 1126764. 1126785. 1127462. 1127462.
	expression c
	ontrol; promoter
	ter;
	ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק
19-JUL-1999 20-JUL-1999 20-JUL-1999 20-JUL-1999 21-JUL-1999 21-JUL-1999 22-JUL-1999 22-JUL-1999 22-JUL-1999 23-JUL-1999 23-JUL-1999 23-JUL-1999 23-JUL-1999 23-JUL-1999 23-JUL-1999 23-JUL-1999 23-JUL-1999 23-JUL-1999 24-JUL-1999 25-JUL-1999 26-JUL-1999 27-JUL-1999 27-JUL-1999 28-JUL-1999 29-JUL-1999 20-JUL-1999 20-JUL	23-JUN-1999 23-JUN-1999 24-JUN-1999 28-JUN-1999 29-JUN-1999 30-JUN-1999 01-JUL-1999 02-JUL-1999 02-JUL-1999 09-JUL-1999 13-JUL-1999 14-JUL-1999 15-JUL-1999 15-JUL-1999 19-JUL-1999 19-JUL-1999 19-JUL-1999 19-JUL-1999
99US-0144335 99US-0144335 99US-0144632 99US-01445085 99US-0145085 99US-0145085 99US-0145085 99US-0145216 99US-0145216 99US-0145216 99US-0145213 99US-0145213 99US-0145213 99US-0146386 99US-0146386 99US-0146386 99US-0147303 99US-0147204 99US-0147204 99US-0147204 99US-0147303 99US-0147303 99US-0147416 99US-0147493 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149425 99US-0149930 99US-0150864	

```
Query Match
Best Local Similarity 58.9
Matches 145; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-SEP-1999;
15-SEP-1999;
16-SEP-1999;
20-SEP-1999;
22-SEP-1999;
23-SEP-1999;
24-SEP-1999;
28-SEP-1999;
29-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                              14-OCT-1999;
14-OCT-1999;
18-OCT-1999;
21-OCT-1999;
21-OCT-1999;
21-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-AUG-1999;
01-SEP-1999;
07-SEP-1999;
                                                                                                                                                                                                                                                           21-OCT-1999;
22-OCT-1999;
22-OCT-1999;
22-OCT-1999;
25-OCT-1999;
25-OCT-1999;
25-OCT-1999;
26-OCT-1999;
26-OCT-1999;
26-OCT-1999;
26-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-OCT-1999;
13-OCT-1999;
13-OCT-1999;
13-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                             14-0CT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-0CT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-OCT-1999
05-OCT-1999
                                                                                                                                                                                                                                                                                                                                                             21-OCT-1999;
21-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-SEP-1999
                                                                     180
                                                                                      121
                                                                                                        121
               221
                                 239
                                                   164
                                                                                                                          61
                                                                                                                                          61
                                                                                                                                                          LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ-DINLELSIGIVSADSSRVSNANSAE
: | ::|| ||||: |: | ::| :||:|:|| | :||:|:|
sed-ngastsgtttdedlrq--ngecyysdnsghlklnldltlgfgswsgrlvgvgssad
                                                                                     skpwcd
                                SKPKVD 244
                                                                                                                                                                                                                                                                                                                                                                                                                                             -1999;
               226
                                                                                                                                                                                                                                                                                                                                                                                                         99US-0159329.
99US-0159330.
99US-0159331.
99US-0159637.
99US-0159638.
99US-0159584.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0154018.
99US-0154039.
99US-0154779.
99US-0155139.
99US-0155486.
                                                                                                                                                                                                                                  990S-0160767.
990S-0160770.
990S-0160814.
990S-0160815.
990S-0160981.
990S-0160981.
990S-01610980.
990S-01614006.
990S-0161406.
990S-0161350.
990S-0161350.
990S-0161350.
990S-0161920.
990S-0161920.
990S-0161920.
990S-0161920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0157865.
99US-0158029.
99US-0158232.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0152363.
99US-0153070.
99US-0153758.
                                                                                                                                                                                                                                                                                                                                                                                                99US-0159584
99US-0160741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0155486
99US-0155659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9908-0151438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0158369
99US-0159293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0157753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0156458.
99US-0156596.
                                                                                                                                                                                                       48.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1930.
                                                                                                                                                                                                39;
                                                                                                                                                                                                        Score 762; DB 21;
Pred. No. 1.9e-64;
                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                 DB 21;
                                                                                                                                                                                                                 Length 236;
                                                                                                                                                                                                Indels
                                                                                                                                                                                                22;
                                                                                                                                                                                               Gaps
                                                                                                       179
                                                                                                                                          120
                                                                                                                         120
                                                                     238
                                                                                       163
                                                   220
                                                                                                                                                                                                ū
18-MAY-1999
19-MAY-1999
20-MAY-1999
21-MAY-1999
21-MAY-1999
25-MAY-1999
27-MAY-1999
27-MAY-1999
01-JUN-1999
01-JUN-1999
01-JUN-1999
01-JUN-1999
10-JUN-1999
11-JUN-1999
                                                                                                                                                                                                                         30-APR-1999
04-MAY-1999
05-MAY-1999
06-MAY-1999
06-MAY-1999
11-MAY-1999
14-MAY-1999
14-MAY-1999
                                                                                                                                                                                                                                                                                                                           25 WAR 1999;
29 WAR 1999;
01 APR 1999;
06 APR 1999;
16 APR 1999;
16 APR 1999;
19 APR 1999;
21 APR 1999;
23 APR 1999;
23 APR 1999;
28 APR 1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                    25-FEB-1999;
05-MAR-1999;
09-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein identification; signal transduction pathway; metabolic hybridisation assay; genetic mapping; gene expression control; termination sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAG49909 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAG49909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arabidopsis thaliana protein
                                                                                                                                                                                                         14-MAY-1999
18-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EP1033405-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arabidopsis thaliana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000EP-0301439
                                                                     990S-0130449
990S-0130891
990S-0131449
990S-0132408
990S-0132486
990S-0132486
990S-0134218
990S-0134218
990S-0134219
990S-0134219
990S-0134270
990S-0134271
990S-0134271
990S-0134271
990S-0134271
990S-0134271
990S-0136392
990S-0137528
990S-0137528
990S-0137528
990S-0138847
                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0121825.
99US-0123180.
99US-0123548.
99US-0125788.
99US-0126264.
99US-0139452.
99US-0139453.
99US-0139492.
99US-0139454.
99US-0139455.
99US-0139456.
99US-0139457.
99US-0139458.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fragment SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63188.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pathway;
promoter;
```

```
990S-0145218
990S-0145276
990S-0145276
990S-0145913
990S-0145951
990S-0146386
990S-0146386
990S-0147302
990S-0147302
990S-0147303
990S-0147413
990S-0147413
990S-0147413
990S-0147316
990S-0147316
990S-0147316
990S-0148311
990S-0149326
990S-0149326
990S-0149375
990S-0149372
                                                                                                                                                                                                                                                                 990S-0144332
990S-0144333
990S-0144334
990S-0144335
990S-0144532
990S-0144684
990S-0144814
990S-0145086
990S-0145088
                                                                                                                                                                                                                                                                                                                                                         99US-0142920.
99US-0143942.
99US-0143542.
99US-0143624.
99US-0144005.
99US-0144085.
99US-0144335.
99US-0144331.
                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0141287.
99US-0141842.
99US-0142154.
99US-0142055.
99US-0142390.
99US-0142803.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                990S-0139461.
990S-0139461.
990S-0139462.
990S-0139750.
990S-0139750.
990S-0139773.
990S-0139819.
990S-0140353.
990S-0140353.
990S-0140354.
990S-0140823.
                                                                                                                                                                                                                           3-0145089.
3-0145192.
3-0145145.
3-0145218.
                      δÃ
                                        B
                                                     Ş
                                                                      В
                                                                                    δÃ
                                                                                                                                      밁
                                                                                                    Query Match 48.1%;
Best Local Similarity 58.9%;
Matches 145; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-AUG-1999;
01-SEP-1999;
07-SEP-1999;
10-SEP-1999;
13-SEP-1999;
                                                                                                                                     25-OCT-1999;
25-OCT-1999;
25-OCT-1999;
26-OCT-1999;
26-OCT-1999;
26-OCT-1999;
28-OCT-1999;
28-OCT-1999;
28-OCT-1999;
29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                         06-OCT-1999;
07-OCT-1999;
08-OCT-1999;
                                                                                                                                                                                                                    22-OCT
22-OCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-SEP-1
16-SEP-1
                                                                                                                                                                                                                                                   21-OCT-1999;
21-OCT-1999;
                                                                                                                                                                                                                                                                          21-OCT-1999;
21-OCT-1999;
                                                                                                                                                                                                                                                                                          14-OCT-1999;
18-OCT-1999;
                                                                                                                                                                                                                                                                                                          14-OCT-1999;
14-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                 04-OCT-1999;
05-OCT-1999;
                                                                                                                                                                                                                                                                                                                           14-OCT-1999
                                                                                                                                                                                                                                                                                                                                   14-0CT-1999,
                                                                                                                                                                                                                                                                                                                                                                                                                  28-SEP-1999;
29-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                 23-SEP-1999;
24-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-SEP-1999;
22-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                 13-OCT-1
        121
                        121
                                        61
                                                        61
                                                                       _
                                                                                     ш
                                                                     IDPQTHRPLNQTANTNT-VTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDS
                                      idpqthrqinesktvssqvvvp----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -1999;
-1999;
-1999;
                                                                                                                                     9908-0149929
9908-0149929
9908-0150566
9908-0151066
9908-0151066
9908-0151303
9908-01513738
9908-0153758
9908-015403
9908-015403
9908-015403
9908-0155468
9908-0157763
9908-0157763
9908-0157763
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-0158029
9908-01608015
9908-01608015
9908-0161406
                                                                                                    ; Score 762; DB 21;
; Pred. No. 1.9e-64;
39; Mismatches 40;
        --lqndaveysfsnlavkpkten
                                                                                                                     Length
                                                                                                     Indels
                                                                                                     22;
                                                                                                      Gaps
                        179
                                        120
                                                       120
                                                                        60
                                                                                       60
```

18-JUN 1999
22-JUN 1999
23-JUN 1999
24-JUN 1999
24-JUN 1999
26-JUL 1999
06-JUL 1999
07-JUL 1999
07-JUL

23-JUL-1999 26-JUL-1999 26-JUL-1999 27-JUL-1999 27-JUL-1999 27-JUL-1999 27-JUL-1999 02-AUG-1999 02-AUG-1999 03-AUG-1999 04-AUG-1999 04-AUG-1999 05-AUG-1999 06-AUG-1999 06-AUG-1999 11-AUG-1999 11-AUG-1999

٠,

S

180

LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ-DINLELSIGIVSADSSRVSNANSAE

238

5

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                             which modifies the flowering time of a plant. The polynucleotide flowering time of a plant. The polynucleotide flowering time or a modified vernalisation requirement. The polynucleotides and polypeptides are useful for modifying plant development, physiology or biochemistry such that the modified plants have a trait advantage over wild type plants. In particular they are useful for accelerating, delaying or preventing flowering. The polynucleotides are also useful as nucleic acid probes and primers. They may be used to identify proteins that can modify the activity of the transaction.
                                                                                                                                                                                                                                                                                                                                                                                                                            08-NOV-1999;
17-NOV-1999;
17-APR-2000;
22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7842
                                                                                                                                                                                    New transgenic plant comprises a recombinant polynucleotide encoding plant transcription factor polypeptide and has a modified flowering time or vernalization requirement -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Transcription factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200126459-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         plant development; plant physiology; flowering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Amino acid sequence of a plant transcription
                                                                                                                           The present sequence represents a plant transcription factor protein which modifies the flowering time of a plant. The polynucleotide
                                                                                                                                                                                                                                                                                   Ratcliffe
                                                                                                                                                                                                                                                                                                                                                                              (MEND-)
(RATC/)
(HEAR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-APR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB67842;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB67842 standard;
                                                                                                                                                                                                                                                WPI; 2001-266398/27.
                                                                                                                                                                                                                                                                       Reuber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-OCT-2000;
                                                                                                                                                                                                                                                                                                                                            (KEDD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ű
                       transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sbd-ngastsgtttdedlrq--ngecyysdnsghiklnldltlgfgswsgrivgvgssad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          skpwcd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SKPKVD
                                                                                                                                                                                                                                                                       ŗ
                                                                                                                                                                                                                                                                                                                                         CREELMAN R.
KEDDIE J.
                                                                                                                                                                                                                                                                                                                                                                                       MENDEL BIOTECHNOLOGY
RATCLIFFE O.
                                                                                                                                                                7; Page 105-106; 108pp; English.
                                                                                                                                                                                                                                     AAF80412
                                                                                                                                                                                                                                                                                                          RIECHMANN
                                                                                                                                                                                                                                                                                                                                JIANG C.
                                                                                                                                                                                                                                                                                                                     REUBER
                                                                                                                                                                                                                                                                                                                                                                              HEARD J
                                                                                                                                                                                                                                                                       O, Heard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              226
                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0159464.
99US-0164132.
99US-0166228.
2000US-0197899.
2000US-0227439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US28141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                   Heard J,
                         factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                       J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       flowering time;
                                                                                                                                                                                                                                                                                   Samaha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   236
                                                                                                                                                                                                                                                                                   æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                   Creelman R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       transgenic plant; vernalisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               factor
                                                                                                                                                                                                                                                                                   Keddie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G208
                                                                                                                                                                                                                                                                                   Ç
                                                                                                                                                                                                                                                                                 Jiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220
```

Sequence

236

The present invention relates to novel plant transcription factors from Eucalyptus grandis or Pinus radiata. The present sequence is one such transcription factor. The transcription factor may be used to produce a plant having modified gene expression such as a woody plant e.g. a eucalyptus, pine, acacia, poplar, sweetgum, teak, or mahogany species of to modify the activity of a polypeptide in a plant. The transcription

are members from the

teak, or mahogany species or a plant. The transcription

Claim

8

Pages 717-718; 747pp; English

```
멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB33306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB33306
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB33306 standard;
                                                                                                        New isolated polynucleotide encoding a plant transcription factor for producing a plant e.g. a woody plant, preferably eucalyptus or pine, having modified gene expression or modified activity of a polypeptide
                                                                                                                                                                      Wood
                                                                                                                                                                                                                                                                                                                                   type
                                                                                                                                                                                                                                                                                                                                                                                               Pinus radiata
                                                                                                                                                  WPI;
                                                                                                                                                                                                                      11-MAR-1999;
18-AUG-1999;
                                                                                                                                                                                                                                                   09-MAR-2000;
                                                                                                                                                                                                                                                                        14-SEP-2000
                                                                                                                                                                                                                                                                                           WO200053724-A2
                                                                                                                                                                                                                                                                                                                                           Plant; transcription factor; gene expression; eucalyptus; pine; poplar; sweetgum; teak; mahogany; bZIF; G-box binding factor; basic helix-loop-helix zipper; homeotic; homeodomain; homeobox; homeodomain zipper; LIM domain; AP2; EREBs; zinc finger domain;
                                                                                                                                                                                                                                                                                                                                                                                                                   25-JAN-2001
                                                                                                                                                                                         (FLET-)
                                                                                                                                                                                                  (GENE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6
                                                                                                                                                                                                                                                                                                                                   N
                                                                                                                                                  2000-579369/54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sd-ngastsgtttdedlrq--ngecyysdnsghiklnldltlgfgswsgrivgvgssad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LRPDLKRGNFTEEEDELIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKÜISRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           skpwcd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SKPKVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ-DINLELSIGIVSADSSRVSNANSAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDPQTHRPLNQTANTNT-VTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                idpqthrqinesktvssqvvvp-----
                                                                                                                                                                                                                                                                                                                                   Cys2H1s2;
                                                                                                                                                                                        GENESIS RES & DEV CORP LTD. FLETCHER CHALLENGE FORESTS LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                    2000WO-US06112
                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                               transcription
                                                                                                                                                                                                                      99US-0266513.
99US-0149485.
                                                                                                                                                                                                                                                                                                                                   CCAAT box element;
                                                                                                                                                                     P
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          48.1%;
                                                                                                                                                                      Shenk MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           255
                                                                                                                                                                                                                                                                                                                                                                                              factor protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 762; DB 22;
Pred. No. 1.9e-64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                      Glenn
                                                                                                                                                                                                                                                                                                                                    HYB.
                                                                                                                                                                      ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         iqndaveysfsnlavkpkten
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                               #346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                           acacia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ន្តន្តន្តន្តន្ត
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 46.0
Best Local Similarity 51.
Matches 155; Conservative
05-MR-1999

09-MR-1999

09-MR-1999

23-MAR-1999

25-MAR-1999

25-MAR-1999

01-APR-1999

01-APR-1999

16-APR-1999

16-APR-1999

17-APR-1999

23-APR-1999

23-APR-1999

23-APR-1999

23-APR-1999

23-APR-1999

23-APR-1999

23-APR-1999

30-APR-1999

30-APR-1999

30-APR-1999
                                                                                                                                                                                                                                                                                                                                                                  2956
                                                                                                                                                                                                                                                         Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter; termination sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of regulatory proteins: bZIP, bZIP family of G-box binding factors, basic helix-loop-helix zipper, homeotito/homeodomain/homeobox/MADS, homeodomain zipper, LIM domain. AP2 and EREBS, zinc finger domains of type 2 Cys2H1s2, CCAAT box elements and MYB.
                                                                                                                                                                                                    06-SEP-2000
                                                                                                                                                                                                                      EP1033405-A2
                                                                                                                                                                                                                                       Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                    AAG32956;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                 25-FEB-2000;
                                                                                                                                                                                                                                                                                                Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                  17-OCT-2000
                                                                                                                                                                                                                                                                                                                                                       AAG32956 standard; Protein; 282
                                                                                                                                                                                                                                                                                                                                                                                                                        234
                                                                                                                                                                                                                                                                                                                                                                                                                                           167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                      207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KSNTDSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSN
: : | | | : : : | | : : : |
                                                                                                                                                                                                                                                                                                                                                                                                      assydgtydskpn---
                                                                                                                                                                                                                                                                                                                                                                                                              ANS----AESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNS--NGFYS
                                                                                                                                                                                                                                                                                                                                                                                                                                           ersesspmep-----atskdaeeh--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDPQTHRPLNQTANTNTVTAPT-----ELDFRNSPTSVSKSSSIKNPSL-DFNYNEFQF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              255 AA;
                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                 2000EP-0301439
990S-0121825

990S-0123548

990S-0125788

990S-0126785

990S-0126785

990S-0126785

990S-0128234

990S-0128234

990S-0128234

990S-0128234

990S-0130077

990S-0130049

990S-0130510

990S-0130510

990S-013049

990S-013049

990S-013049

990S-013049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46.0%; Score 728.5;
51.7%; Pred. No. 3.4
tive 32; Mismatches
                                                                                                                                                                                                                                                                                               protein fragment SEQ ID NO: 39857.
                                                                                                                                                                                                                                                                                                                                                                                                     ----svschmglqvnygvqcenryceesasgvssfyt
                                                                                                                                                                                                                                                                                                                                                        A
                                                                                                                                                                                                                                                                                                                                                                                                                                         |:||:| | : |
|-----pdlnldlcislpvhsppatsr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 21;
.4e-61;
les 52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                              233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                      252
                                                                                                                                                                                                                                                                                                                                                                                                                                           206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
  19-JUL-1999;
19-JUL-1999;
20-JUL-1999;
20-JUL-1999;
20-JUL-1999;
21-JUL-1999;
21-JUL-1999;
21-JUL-1999;
22-JUL-1999;
                                                                                                                                                                                                                     30-JUN-1999;
01-JUL-1999;
01-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-MAY-1999;
25-MAY-1999;
27-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUN-1999;
16-JUN-1999;
17-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                         18-JUN-1999;
18-JUN-1999;
                                                                                                                                             14-JUL-1999
15-JUL-1999
                                                                                                                                                                                08-JUL-1999
09-JUL-1999
                                                                                                                                                                                                   02-JUL-1999
06-JUL-1999
                                                                                                                                                                                                                                                                                                                                                      18-JUN-1999
18-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-JUN-1999
07-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAY-1999
21-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-MAY-1999
18-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-MAY-1999,
14-MAY-1999,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-MAY-1999;
14-MAY-1999;
                                                                                    19-JUL-1999
19-JUL-1999
                                                                                                                16-JUL-1999;
19-JUL-1999;
                                                                                                                                   16-JUL-1999
                                                                                                                                                             12-JUL-1999
13-JUL-1999
                                                                                                                                                                                                                                                 29-JUN-1999
                                                                                                                                                                                                                                                                    24-JUN-1999
                                                                                                                                                                                                                                                                              23-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-may-1999
                                                                                                                                                                                                                                                                                                                 L8-JUN-199
                                                                                                                                                                                                                                                                                                                          8-JUN-1999
                                                                                                                                                                                                                                                                                                                                    L8-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-JUN-1999
                                                                                                                                                                                                                                                                                     3-JUN-1999
                                                                                                                                                                                                                                                                                                          1-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                             .8-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                              .8-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                             4-JUN-1999
 99US-0143542

99US-0144005

99US-0144086

99US-0144325

99US-0144332

99US-0144332

99US-0144332

99US-0144334

99US-0144334

99US-0144632

99US-0144632

99US-0144632

99US-0144632

99US-0144632

99US-0144632

99US-0144632

99US-0144632

99US-0144632
                                                                                                                                                                                                                                                                                                                 9905-0138094.
9905-0138119.
9905-0139119.
9905-0139453.
9905-0139453.
9905-0139455.
9905-0139456.
9905-0139458.
9905-0139459.
9905-0139459.
9905-0139459.
9905-0139461.
9905-0139461.
9905-0139461.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0135629
99US-0136392
99US-0136392
99US-0136782
99US-0137528
99US-0137528
99US-0137502
99US-0137502
                                                                                                                                                             99US-0141287
99US-0141842-
99US-0142054
99US-0142055
99US-0142390
99US-0142803
99US-0142920
99US-0142972
99US-0143542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0134370.
99US-0134768.
99US-0134941.
99US-0135124.
99US-0135353.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0132485.
99US-0132486.
99US-0132487.
99US-0132863.
99US-0134256.
99US-0134218.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5-0134219.
5-0134221.
                                                                                                                                                                                                                                                                                                 -0139899
```

22-JUL-1999; 22-JUL-1999; 22-JUL-1999;

99US-0145087.
99US-0145192.
99US-0145192.
99US-0145214.
99US-0145218.
99US-0145218.
99US-0145219.
99US-0145319.
99US-0145386.
99US-0145386.
99US-0145386.
99US-0147303.
99US-0147303.
99US-0147726.

7;

```
В
                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                           ₽
                                                                                                                                                                                                                                                                                                                                                                                         Š
 Š
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                              吊
                                                                                                                                                                                                                       AAE02476
                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 146; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-OCT-1999;
28-OCT-1999;
                      17-NOV-1999;
17-APR-2000;
22-AUG-2000;
                                                                                                                                           plant
                                                                                                                                                                                                               AAE02476 standard; Protein; 282 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                     28-OCT-1999;
29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-OCT-1999;
26-OCT-1999;
                                                                                                               Key
                                                                                                                             Arabidopsis thaliana.
                                                                                                                                                                  Arabidopsis thaliana transcription factor G664.
                                                                                                                                                                                                AAE02476;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-0CT-1999;
(MEND-) MENDEL BIOTECHNOLOGY INC. (PINE/) PINEDA O.
                                                   14-NOV-2000; 2000WO-US31458
                                                                  25-MAY-2001.
                                                                                 WO200136598-A1
                                                                                                                                                   Transcription
                                                                                                                                                                                 10-AUG-2001 (first entry)
                                                                                                                                                                                                                                                                                  177
                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                    223
                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                         æ
                                                                                                                                                                                                                                                   LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLEL-----
                                                                                                                                                                                                                                                                  ----SIGIVSADSSRVSNAN----SAESKPKVDNNNFQFL 251
                                                                                                                                            structure; plant
                                                                                                                                                                                                                                                                                 -----smltfkeekdecpvqekf-----pdlnlelrislpddvdrlqghgksttp
                                                                                                                                                                                                                                                                                                                                                                                                       45.6%;
nilarity 52.0%;
Conservative 38
                      99US-0166228.
2000US-0197899.
2000US-0227439.
                                                                                                                                                   factor; environmental stress tolerance;
                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0160981.
99US-01610989.
99US-0161404.
99US-0161405.
99US-0161360.
99US-0161361.
99US-0161361.
99US-0161920.
99US-0161993.
99US-0161993.
99US-0161993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0160814.
99US-0160815.
                                                                                                       Location/Qualifiers
                                                                                                /note=
                                                                                                "Conserved domain"
                                                                                                                                             development.
                                                                                                                                                                                                                                                                                                                                                                                                         38;
                                                                                                                                                                                                                                                                                                                                                                                                        Score 723; DB 21;
Pred. No. 1.3e-60;
8; Mismatches 49
                                                                                                                                                                                                                                                                                                                                                                                                          49;
                                                                                                                                                                                                                                                                                                                                                                                                                        Length 282;
                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                    gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                          48;
                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                               179
                                                                                                                                                                                                                                                                                    222
                                                                                                                                                                                                                                                                                                                 176
                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                  219
```

\$\text{\$\pi\$ \$\pi\$ \$\pi\$

990S-0151065.
990S-0151080.
990S-0151303.
990S-0151438.
990S-01513758.
990S-0154018.
990S-0154018.
990S-0154039.
990S-0155458.
990S-0155458.
990S-0155458.
990S-0155458.
990S-0155458.
990S-0157865.
990S-0157865.
990S-0158369.
990S-0158369.
990S-0158369.
990S-0159294.
990S-0159294.
990S-0159294.
990S-0159294.
990S-0159331.

pathway;
promoter;

```
AAG30442
ID AAG3
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 146; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          factor. This novel transcription factor is useful for modifying a plant's phenotype in desirable ways; such as modifying a plants environmental stress. The transcription factor is encoded by environmental stress tolerance gene derived from Arabidopsis thaliana. The transcription factors and the genes encoding them are used to alter the structure and developmental characteristics of plants such as soybean, wheat, corn, potato, cotton, rice, oilseed rape, sunflower, alfalfa, sugarcane, turf, banana, blackberry, blueberry, strawberry, respectively.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pineda
Reuber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        raspberry, cantaloupe, carrot, cauliflower, coffee, onion, cucumber, eggplant, grapes, honey dew, lettuce, mango, melon, papaya, peas, peppers, pineapple, spinach, squash, sweet corn, tobacco, tomato, watermelon, rosaceous fruits and/or vegetable brassicas. These sequences are also used for modifying traits associated with environmental stress tolerance, such as freezing, chilling, heat, drought, water saturation, salt, photoconditions, radiation and ozone. The transcription factors
   17-OCT-2000
                               AAG30442;
                                                            AAG30442 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 4; Page 83-84; 116pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleic acids encoding plant transcription factor polypeptides, useful for altering the environmental stress tolerance characteristics of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HEAR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present amino acid sequence is Arabidopsis thaliana transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CREE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               are used in gene therapy.
                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KEDD/)
                                                                                                                                   223
                                                                                                                                                                                           177
                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                              LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120
                                                                                                                                rcfkcslgmingmecrcgrmrcdvvggsskgsdmsngfdfl 263
                                                                                                                                                                                                                   LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLEL----
                                                                                                                                                                                                                                                                  IDPQTHRPLNQTANTNTYTAPTELDFRNSPT-SVSKSSSIKNPSLDFNYNEFQFKSNTDS 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-336000/35.
DB; AAD06456.
                                                                                                                                                                                                                                                idptshrpi-qessasqdskptqlepvtsntinisftsa---pkvetfhesisfpgksek 176
                                                                                                                                                                                                                                                                                                        lrpdlkrgnfteeedeliiklhsllgnkwsliagrlpgrtdneiknywnthirrklinrg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĻΟ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CREELMAN R.
CREELMAN R.
RIECHMAN J L.
REARD J.
RATCLIFFE O.
REUBER L.
KEDDIE J.
                                                                                                                                                             SIGIVSADSSRVSNAN----SAESKPKVDNNNFQFL 251
                                                                                                                                                                                     -----smltfkeekdecpvqekf----pdlnlelrislpddvdrlqghgksttp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yu G, Creelman Keddie J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   282
                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
   (first entry)
                                                            Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                        45.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                            38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₻
                                                                                                                                                                                                                                                                                                                                                                                                                        Score 723; DB 22;
Pred. No. 1.3e-60;
38; Mismatches 49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Riechmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JL,
                                                                                                                                                                                                                                                                                                                                                                                                                            49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Heard
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 282;
                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ratcliffe
                                                                                                                                                                                                                                                                                                                                                                                                                           48;
                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                      219
                                                                                                                                                                                                                                                                                                                                                                                                                           7;
   10-JUN-1999
16-JUN-1999
16-JUN-1999
17-JUN-1999
18-JUN-1999
18-JUN-1999
18-JUN-1999
18-JUN-1999
18-JUN-1999
18-JUN-1999
18-JUN-1999
18-JUN-1999
                                                                                                                                                                                                                                                                          19 MAY 1999
20 - MAY 1999
21 - MAY 1999
21 - MAY 1999
24 - MAY 1999
25 - MAY 1999
27 - MAY 1999
28 - MAY 1999
01 - JUN 1999
04 - JUN 1999
07 - JUN 1999
 18-JUN-1999;
18-JUN-1999;
18-JUN-1999;
                                                                                                                                                                                                                                                10-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hybridisation assay; genetic mapping; gene expression termination sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-FEB-1999;
05-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Protein identification; signal transduction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arabidopsis thaliana protein fragment SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000EP-0301439
9905-013804

9905-0138140

9905-0139119

9905-0139453

9905-0139453

9905-0139455

9905-0139456

9905-0139456

9905-0139459

9905-0139459

9905-0139459

9905-0139459

9905-0139459

9905-0139459

9905-0139461

9905-0139461
                                                                                                                                                                                                                                                                                                                                                                                                                                       990S-0132863
990S-0134218
990S-0134218
990S-0134219
990S-0134221
990S-0134370
990S-0134768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0132484.
99US-0132485.
99US-0132486.
99US-0132487.
99US-0132863.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0128234
99US-0128714
99US-0129845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              990S-0130449
990S-0130510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9905-0132048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9908-0130891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         990S-0121825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pathway; metabolic
expression control;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NO:
```

Ş

밁

밁

S

밁

Š

밁

23-JUN-1999 24-JUN-1999 28-JUN-1999 29-JUN-1999

23-JUN-1999

```
QΥ
                                                      В
                                                                   δÃ
                                                                                  В
                                                                                               δÃ
                                                                                                              몽
                                                                                                                         δÃ
                            밁
                                                                                                                                        Query Match 44.:
Best Local Similarity 54.0
Matches 149; Conservative
                                                                                                                                                                   25-OCT-1999;
26-OCT-1999;
26-OCT-1999;
26-OCT-1999;
28-OCT-1999;
28-OCT-1999;
28-OCT-1999;
29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                 29-SEP-1999;
04-OCT-1999;
05-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                     16-SEP-1999;
20-SEP-1999;
22-SEP-1999;
23-SEP-1999;
24-SEP-1999;
28-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-AUG-1999
30-AUG-1999
31-AUG-1999
01-SEP-1999
07-SEP-1999
10-SEP-1999
13-SEP-1999
15-SEP-1999
                                                                                                                                                                                                                                                                           21-0CT-1
                                                                                                                                                                                                                                                                                                                                                                                    06-OCT-1999
07-OCT-1999
                                                                                                                                                                                                                           25-OCT-1999;
25-OCT-1999;
                                                                                                                                                                                                                                                                                        21-OCT-1999;
21-OCT-1999;
                                                                                                                                                                                                                                                                                                                     14-OCT-1999;
14-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                            08-OCT-1999
                                                                                                                                                                                                                                                                                                              14-0CT-1999
                                                                                                                                                                                                                                                                                                                                          14-0CT-1999
                                                                                                                                                                                                                                                                                                                                                 13-0CT-1
                                                                                                                                                                                                                                                                                                                                                        13-OCT-1999
                                                                                                                                                                                                                                                                                                                                                              13-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                       12-0CT-1999
                                                                                                                                                                                                                                         22-OCT-1999;
                                                                                                                                                                                                                                                22-OCT-1
                                                                                                                                                                                                                                                                                                       18-OCT-1999
                                                                                                                                                                                                                                                                                                                                   14-0CT-1
 211
              246
                            161
                                         188
                                                       121
                                                                    133
                                                                                                                           13
                                                                                  62
                                                                                               73
                                                                                                              N
                                                                                                            ANTITYAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSLEEP----NCTA
                                                                                                                                                                                                                                                             1999
                                                                                                                                                                                                                                                                             6661
                                                                                                                                                                                                                                                                                                                                                 1999
                                                                                                                                                                   990S-0159584

990S-0160741

990S-0160767,

990S-0160768,

990S-0160814,

990S-0160818,

990S-0160981,

990S-0160981,

990S-0161406,

990S-0161405,

990S-0161361,

990S-0161361,

990S-0161361,

990S-0161920,

990S-0161993,

990S-0161993,

990S-0161993,
                                                                                                                                                                                                                                                                                                                                                                                                990S-0151930
990S-01533758
990S-0153758
990S-0154779
990S-0154779
990S-0154779
990S-0155486
990S-0155486
990S-0155486
990S-0155486
990S-01565486
990S-0156559
                                                                                                                                                                                                                                                                                                             99US-0157865
99US-0158232
99US-0158236
99US-0159293
99US-0159293
99US-0159295
99US-0159329
99US-0159330
99US-0159330
99US-0159330
99US-0159637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0151438
                                                                                                                                               44.38;
                                                                                                                                          33;
                                                                                                                                        Score 702; DB 21;
Pred. No. 1.1e-58;
3; Mismatches 52;
              281
                                                                                                                                                     Length 246;
                                                                                                                                          Indels
                                                                                                                                          42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1
                                                                                                                                          Gaps
                                                        160
                                                                      187
                                                                                                 132
                                                                                                               5
                                          245
                                                                                   120
                                                                                                                                          7;
```

990S-0139817.
990S-0139899.
990S-0140553.
990S-0140695.
990S-0140695.
990S-0141887.
990S-0142055.
990S-0142205.
990S-014220.
990S-014220.
990S-014220.
990S-014220.
990S-014220.
990S-0143542.
990S-0144331.
990S-0144331.
990S-014514.
990S-014518.
990S-014518.
990S-0147303.
990S-01477303.
990S-01477303.
990S-01477303.
990S-01477303.
990S-01477303.
990S-0149723.
990S-0149930.

19-JUL-1999; 19-JUL-1999; 19-JUL-1999;

16-JUL-1999; 19-JUL-1999;

23-JUL-1999 26-JUL-1999 27-JUL-1999 27-JUL-1999 27-JUL-1999 27-JUL-1999 02-AUG-1999 02-AUG-1999 03-AUG-1999 04-AUG-1999 05-AUG-1999 05-AUG-1999 06-AUG-1999 06-AUG-1999 06-AUG-1999 06-AUG-1999 06-AUG-1999 06-AUG-1999 06-AUG-1999 09-AUG-1999

10-AUG-1999 11-AUG-1999 12-AUG-1999 13-AUG-1999 13-AUG-1999 16-AUG-1999 17-AUG-1999 20-AUG-1999 20-AUG-1999 20-AUG-1999 23-AUG-1999 23-AUG-1999 23-AUG-1999 25-AUG-1999 25-AUG-1999 27-AUG-1999 27-AUG-1999 27-AUG-1999

```
S
                                                                                                                                                                                                                                                             밁
                                                             밁
                                                                                     Ş
                                                                                                                      B
                                                                                                                                                  å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB33322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                           Query Match 44.3
Best Local Similarity 54.5
Matches 146; Conservative
                                                                                                                                                                                                                                                                                                   Eucalyptus grandis or Pinus radiata. The present sequence is one such transcription factor. The transcription factor may be used to produce a plant having modified gene expression such as a woody plant e.g. a eucalyptus, pine, acacia, poplar, sweetgum, teak, or mahogany species or to modify the activity of a polypeptide in a plant. The transcription factors of the present invention are members from the following families of regulatory proteins: bZIP bZIP family of G-box binding factors, basic helix-loop-helix zipper, homeotic/homeodomain/homeobox/MADS, homeodomain helix-loop-helix zipper, homeotic/homeodomain/homeobox/MADS, homeodomain cipper, LIM domain, AP2 and EREBS, zinc finger domains of type 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated polynucleotide encoding a plant transcription factor for producing a plant e.g. a woody plant, preferably eucalyptus or pine, having modified gene expression or modified activity of a polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAR-2000; 2000WO-US06112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-SEP-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200053724-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Plant; transcription factor; gene expression; eucalyptus; pine; poplar; sweetgum; teak; mahogany; bZIP; G-box binding factor; basic helix-loop-helix zipper; homeotic; homeodomain; homeobox; homeodomain; zipper; LIM domain; AP2; EREBs; zinc finger domain;
                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to novel plant transcription factors from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 8; Pages 724-725; 747pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wood M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-MAR-1999;
18-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pinus radiata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            type 2 Cys2H1s2; CCAAT box element; MYB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pinus radiata transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB33322 standard; Protein; 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-579369/54.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (FLET-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GENE-) GENESIS RES & DEV CORP LTD.
   121
                               121
                                                             61
                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10
                                                                                                                    LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120
               IDPQTHRPLNQTANTNTVTAPT---ELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNT 177
 ldpqthrplgqpnnt-pvtrpvleheipafqnpatpeiadllqhhrle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                McGrath A,
                                                                                                                                                                                                                                                                                         CCAAT box
                                                                                                                                                                                                                                                             225 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first.entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0266513.
99US-0149485.
                                                                                                                                                                                              54.5%;
                                                                                                                                                                                                                                                                                         elements and MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shenk MA,
                                                                                                                                                                                 26;
                                                                                                                                                                                Score 701; DB 21;
Pred. No. 1.2e-58;
26; Mismatches 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      factor protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glenn M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A
                                                                                                                                                                                                               21;
                                                                                                                                                                                 48;
                                                                                                                                                                                                           Length 225;
                                                                                                                                                                                 Indels
                                                                                                                                                                                 48;
                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MADS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         acacia;
                                                                                                                       60
                                                                                                                                                    60
   167
```

```
RESULT 11
AAG31297
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
20-MAY-1999;
21-MAY-1999;
24-MAY-1999;
25-MAY-1999;
27-MAY-1999;
01-JUN-1999;
03-JUN-1999;
                                                                                                                                                  04-MAY-1
05-MAY-1
06-MAY-1
06-MAY-1
07-MAY-1
11-MAY-1
                                                                                                                                                                                                                                                                                                                                                                  25-FEB-1999;
05-MAR-1999;
09-MAR-1999;
                                                                                               14-MAY-1
18-MAY-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                       EP1033405-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein identification; signal transduction hybridisation assay; genetic mapping; gene e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana protein fragment SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAG31297;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAG31297 standard;
                                                                                                                     14-may-1999
                                                                                                                             14-MAY-1999
14-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                             25-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                  06-SEP-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               termination sequence
                                                                                    19-MAY-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dt--tvdsns--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ESKPKVDNNNFQFLEQAMVAKAVCLCWQ 265
                                                                                                                                                                                                                                                                                                                                                                                                             2000EP-0301439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                         9908-0121825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---nsgdglcwq 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene expression control;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -pdlnlnlcislpsnsapavnrvssv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pathway;
promoter;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          237
```

```
23-JUL-1999;
23-JUL-1999;
23-JUL-1999;
26-JUL-1999;
27-JUL-1999;
27-JUL-1999;
27-JUL-1999;
28-JUL-1999;
                                                                                                                                                                                                                                                                      21-JUL-1999;
21-JUL-1999;
21-JUL-1999;
22-JUL-1999;
                                                                                                                                                                                                                                                                                                                      20-JUL-1999;
20-JUL-1999;
20-JUL-1999;
02-AUG-
02-AUG-
02-AUG-
03-AUG-
03-AUG-
04-AUG-
04-AUG-
05-AUG-
05-AUG-
06-AUG-
06-AUG-
09-AUG-
09-AUG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-1999;
18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-JUN-1999;
18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUN-1999;
16-JUN-1999;
17-JUN-1999;
18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                       19-JUL-1999;
19-JUL-1999;
                                                                                                                                                                                                                                                22-JUL-1999;
22-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23 - JUN - 1999
23 - JUN - 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-JUN-1999;
14-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                             9-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0138847.
99US-0139119.
99US-0139452.
99US-0139453.
99US-0139455.
99US-0139456.
99US-0139456.
99US-0139457.
99US-0139459.
99US-0139459.
99US-0140354.
99US-0140823.
99US-0140823.
99US-0140823.
99US-0141847.
99US-0142154.
99US-0142390.
99US-0142397.
99US-0144085.
99US-0144085.
99US-0144334.
99US-0144332.
99US-0144333.
99US-0144333.
99US-0144333.
99US-0144814.
99US-0144814.
99US-014528.
99US-014538.
99US-014538.
99US-014538.
99US-014538.
99US-014538.
99US-014538.
99US-014730.
99US-014730.
99US-014730.
99US-014730.
99US-014730.
99US-014730.
99US-014730.
99US-014730.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  990S-01
990S-01
990S-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                990S-01
990S-01
990S-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4035
           δõ
                                 Query Match 43.2%;
Best Local Similarity 49.5%;
Matches 146; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-AUG-1999;
20-AUG-1999;
23-AUG-1999;
23-AUG-1999;
25-AUG-1999;
26-AUG-1999;
27-AUG-1999;
27-AUG-1999;
30-AUG-1999;
30-AUG-1999;
31-AUG-1999;
31-AUG-1999;
01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-AUG-1999;
11-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L7-AUG-1999
1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                     -1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0149722
99US-0149723
99US-0149929
99US-0149902
99US-0150566
99US-0150884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0151438.
99US-0151930.
99US-0152363.
99US-0153070.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0148171.
99US-0148319.
99US-0148341.
                                                                               9908-0159329.
9908-0159331.
9908-0159638.
9908-0159638.
9908-0160767.
9908-0160767.
9908-0160767.
9908-0160814.
9908-0160980.
9908-0160980.
9908-0160980.
9908-0161406.
9908-0161406.
9908-0161406.
9908-0161406.
9908-0161369.
9908-0161369.
9908-0161369.
9908-0161369.
9908-0161369.
9908-0161369.
9908-0161399.
9908-0161399.
9908-0161399.
                                                                                                                                                                                                                                                                                                                                                                                 990S-0157753
990S-0157865
990S-0158029
990S-0158232
990S-0158333
990S-0159294
990S-0159294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0151065
99US-0151066
99US-0151080
99US-0151303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               990S-01
990S-01
990S-01
                                  ; Score 684; DB 21;
; Pred. No. 6.5e-57;
30; Mismatches 61;
                                                         Length
                                    Indels
                                                            274;
                                    58;
                                   Gaps
             60
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
  AAE02485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                                                                                                                                                                                               17-NOV-1999;
17-APR-2000;
22-AUG-2000;
                                                                                                                                               Pineda O,
Reuber L,
The present amino acid sequence is Arabidopsis thaliana transcription factor homologue. This novel transcription is useful for modifying a plant's phenotype in desirable
                                                                                                                                                                                                                                                                                                                                            14-NOV-2000;
                                                                                                                                                                                                                                                  (PINE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  plant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAE02485 standard; Protein;
                                             Claim 4; Page 101-102;
                                                                             Nucleic acids encoding plant transcription factor polypeptides, for altering the environmental stress tolerance characteristics
                                                                                                                                                                                                                                                                                                                                                                                         WO200136598-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Transcription factor; environmental stress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAE02485
                                                                                                                N-PSDB; AAD06465
                                                                                                                                                                                   KEDD/)
                                                                                                                                                                                                                                                                          (MEND-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                          2001-336000/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQN-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ek---ianfg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mgrspccekdhtnkgawtkeeddklisyikahgegcwrslprsaglqrcgkscrlrwiny
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ--DINLELSIGIVSADSSRVSNANSAE 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       idpathrpinetktsq------dssdssktedplv-----kilsfgpql
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  structure; plant development.
                                                                                                                                                                                          HEARD J.
RATCLIFFE O.
REUBER L.
                                                                                                                                                                                                                                                 Ŋ.
                                                                                                                                                                                                                                                             MENDEL BIOTECHNOLOGY INC PINEDA O.
                                                                                                                                                                                  KEDDIE
                                                                                                                                                                                                                            RIECHMANN J
                                                                                                                                                                                                                                        CREELMAN R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dernlrfgr----vkyrcsacrfgfgngkec-scnnvkcqtedsssssys
                                                                                                                                             Yu G, Creelman
Keddie J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     thaliana
                                                                                                                                                                                                                                                                                               99US-0166228.
2000US-0197899.
2000US-0227439.
                                                                                                                                                                                                                                                                                                                                            2000WO-US31458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                  9 5
                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
14..119
                                                                                                                                                                                                                                                                                                                                                                                                                /note=
                                                                                                                                                                                                                            ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -deriqkrveysvveercldlnlelrisppwqdklh
                                           116pp;
                                                                                                                                                                                                                                                                                                                                                                                                                "Conserved domain"
                                                                                                                                                           æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          274
                                           English.
                                                                                                                                                           Riechmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     factor G664 homologue,
                                                                                                                                                           JĽ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tolerance; gene therapy;
                                                                                                                                                           Heard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -SNSNGFYS
                                                                                                                                                           ۲,
                                                                                                                                                           Ratcliffe 0;
factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       287
                                                                              useful
of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
```

such

```
멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAG29948
                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 146
25-FEB-1999
05-MAR-1999
09-MAR-1999
23-MAR-1999
25-MAR-1999
25-MAR-1999
01-APR-1999
06-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                them are used to alter the structure and developmental characteristics of plants such as soybean, wheat, corn, pottato, cotton, rice, oilseed rape, sunflower, alfalfa, sugarcane, turf, banana, blackberry, papaya, strawberry, raspberry, cantaloupe, carrot, cauliflower, coffee, onlon, cucumber, eggplant, grapes, honey dew, lettuce, mango, meldi, blueberry, peas, peppers, pineapple, spinach, squash, sweet corn, tobacco, tomato, watermelon, rosaceous fruits and/or vegetable brassicas. These sequences are also used for modifying traits associated with environmental stress tolerance, such as freezing, chilling, heat, drought, water saturation, salt, photoconditions, radiation and ozone. The transcription factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modifying a plants environmental stress. The transcription factor is encoded by environmental stress tolerance gene derived from Arabidopsis thallana. The transcription factors and the genes encoding arabidopsis thallana.
                                                                                                                                                             06-SEP-2000
                                                                                                                                                                                                                    Arabidopsis thaliana.
                                                                                                                                                                                                                                                             Protein identification; signal transduction pathway; metabolic
hybridisation assay; genetic mapping; gene expression control;
                                                                                                                                                                                                                                                                                                      Arabidopsis thallana protein fragment SEQ ID NO: 35717.
                                                                                                                                                                                                                                                                                                                                                                                              AAG29948 standard; Protein; 269
                                                                                                                                 25-FEB-2000;
                                                                                                                                                                                         EP1033405-A2
                                                                                                                                                                                                                                                 termination
                                                                                                                                                                                                                                                                                                                                    17-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                 AAG29948;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       are used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                          13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>_</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mgrspccekdhtnkgawtkeeddklisylkahgegcwrslprsaglqrcgkscr1rwiny
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQN-----SNSNGFYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ek---1anfg----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ--DINLELSIGIVSADSSRVSNANSAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      idpathrpinetktsq------dssdssktedplv-----kilsfgpql
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL||||:|: | : | : | |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dernlrfgr---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene therapy.
                                                                                                                                                                                                                                                 sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                 2000EP-0301439
 990S-0121825
990S-0123548
990S-0125788
990S-0125788
990S-0126264
990S-0126785
990S-0127462
990S-0128234
                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -deriqkrveysvveercldlnlelrisppwqdklh---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -vkyrcsacrfgfgngkec-scnnvkcqtedsssssys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 684; DB 22;
Pred. No. 6.5e-57;
                                                                                                                                                                                                                                                                                                                                                                                              Ã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      245
                                                                                                                                                                                                                                                                pathway;
promoter;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9.
```

S-0130510. S-0130891. S-0131449. S-0132048. S-0132407. S-0132484. S-0132484.

Ħ
ag
Ø
H

			٠.		
			•	•	
					-
	in.		·		•
			·		
1	אק אק אק אק אק אק אק אק אק אק אק אק אק א	סיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסי	קר ק	אק אק פ א א ק פ א א א א פ א א א א א א א א פ א א א א א	אק אק אק אק אק אק אק אק אק אק אק אק אק א
				4	
-SEP-19-19-19-19-19-19-19-19-19-19-19-19-19-	26-AUG-1999 27-AUG-1999 27-AUG-1999 27-AUG-1999 27-AUG-1999 31-AUG-1999 31-AUG-1999 01-SEP-1999 10-SEP-1999 11-SEP-1999 15-SEP-1999 20-SEP-1999 22-SEP-1999 23-SEP-1999	7-AUG-19 7-AUG-19 8-AUG-19 9-AUG-19 9-AUG-19 8-AUG-19	04-AUG-19 05-AUG-19 05-AUG-19 05-AUG-19 06-AUG-19 06-AUG-19 06-AUG-19 10-AUG-19 11-AUG-19 11-AUG-19 11-AUG-19 11-AUG-19 11-AUG-19 11-AUG-19	22-JUL-19 23-JUL-19 23-JUL-19 26-JUL-19 26-JUL-19 27-JUL-19 27-JUL	19-JUL-19 19-JUL-19 19-JUL-19 20-JUL-19 20-JUL-19 20-JUL-19 21-JUL-19 21-JUL-19 22-JUL-19 22-JUL-19
					13.
				0 - 8D66 0 - 8D66	0-8066 0-8066 0-8066 0-8066 0-8066 0-8066 0-8066 0-8066
015565 015645 015659 015711 015775 015802 015823 015836 015836 015929			014730 014719 014726 014730 014730 014741 014749 014793 014817 014834 014836	1145192 11452145 1145224 1145226 1145276 1145913 1145913 1145918 1145911 1145951 1146386 1146388	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0				
				·	
·					

990S-0132467 990S-0134216 990S-0134216 990S-0134211 990S-013476 990S-013476 990S-0135124 990S-0135124 990S-0135629 990S-0136629 990S-0136629 990S-0136629 990S-0137522 990S-0137522 990S-0137750 990S-0139451 990S-0139451 990S-0139452 990S-0139453 990S-0139453 990S-0139453 990S-0139453 990S-0139454 990S-0139453 990S-0140823 990S-0140823 990S-014280 990S-0144085 990S-0144085

```
밁
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                              밁
Ş
                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                       AAE02486
                                                                                                                                                                           RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                         AAE02486
                                                                                                                                                         AAE02486 standard; Protein;
        WO200136598-A1
                                  Domain
                                                           Arabidopsis thaliana
                                                                          Transcription factor; environmental stress tolerance; gene therapy; plant structure; plant development.
                                                                                                     Arabidopsis thaliana transcription factor G664 homologue,
                                                                                                                       10-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-OCT-1999
                                                                                                                                                                                                                                        163
                                                                                                                                                                                                    213 rf-----ymendmec-----ssetvk-cqtensssi-sy
                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                       1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                           ESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGFYSY 288
                                                                                                                                                                                                                                       qkqnky1rng1vckeervvveek1--
                                                                                                                                                                                                                                                       EEPNCTASSGMTTDEEQ---QEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSA 237
                                                                                                                                                                                                                                                                                           IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL 180
                                                                                                                                                                                                                                                                         mgrspccekehmnkgawtkeederlvsylkshgegcwrslpraagllrcgkscrlrwiny 60
                                                                                                                                                                                                                                                                                                                                                                                   142;
                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0161992
99US-0161993
                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0161920
                                                                                                                                                                                                                                                                                                                                                                                                                                                        9908-016136:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9905-01
                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0162142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                9908-0161360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0161359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0161406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9908-0161405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9905-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               990S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9908-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0160814
                                Location/Qualifiers 14..115
                       /note= "Conserved domain"
                                                                                                                                                                                                                                                                                                                                                                                          43.0%;
                                                                                                                                                                                                                                                                                                                                                                                  35;
                                                                                                                                                           269
                                                                                                                                                                                                                                                                                                                                                                                          Score 681.5; DB 21; Pred. No. 1.1e-56;
                                                                                                                                                          ₿
                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                       gpdlnlelrisppwqnqreistctas
                                                                                                                                                                                                                                                                                                                                                                                   59;
                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                  Length 269;
                                                                                                                                                                                                                                                                                                                                                                                 55;
                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                       212
                                                                                                                                                                                                                                                                                                                                                                                  8
```

```
D
                                                                                                                Š
                                                                                                                                                                  밁
                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                         ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PD PAA PAA PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 142; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         them are used to alter the structure and developmental characteristics of plants such as soybean, wheat, corn, pottato, cotton, rice, oilseed rape, sunflower, alfalfa, sugarcane, turf, banana, blackberry, papaya, strawberry, raspberry, cantaloupe, carrot, cauliflower, coffee, onion, cucumber, eggplant, grapes, honey dew, lettuce, mango, melon, blueberry, peas, peppers, pineapple, spinach, squash, sweet corn, tobacco, tomato, watermelon, rosaceous fruits and/or vegetable brassicas. These sequences are also used for modifying traits associated with environmental stress tolerance, such as freezing, chilling, heat, drought, water saturation, tolerance, such as freezing, chilling, heat, drought, water saturation, and the conditions are such as the conditions of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  salt, photoconditions, radiation and ozone. The transcription are used in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           transcription factor homologue. This novel transcription factor is useful for modifying a plant's phenotype in desirable ways, such modifying a plants environmental stress. The transcription factor is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pineda
Reuber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 encoded by environmental stress tolerance gene derived from Arabidopsis thaliana. The transcription factors and the genes encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present amino acid sequence is Arabidopsis thaliana transcription factor homologue. This novel transcription factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 4; Page 103-104; 116pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic acids encoding plant transcription factor polypeptides, for altering the environmental stress tolerance characteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-336000/35.
N-PSDB; AAD06466.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MEND-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-APR-2000;
22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-MAY-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-NOV-1999;
                        238
                                                                       163
                                                                                                                   181
                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (KEDD/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (RIEC,
                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REUB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HEAR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CREE,
                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                           61
ESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGFYSY
                                                                                                                                                                                                                                                     mgrspccekehmnkgawtkeederlvsylkshgegcwrslpraagllrcgkscrlrwiny
                                                                                                                                                                                                                                                                                                                                                                                                      MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                    qkqnkyirnglvckeervvveeki-----gpdlnlelrisppwqnqreistctas
                                                                                                                                                                                               IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                                                              EEPNCTASSGMTTDEEQ --- - QEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSA
                                                                                                                                                               idpathrginea------kisdlkktkdqivkdvsfvtkfee----tdksgd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ,,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REUBER L.
KEDDIE J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HEARD J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MENDEL BIOTECHNOLOGY INC PINEDA O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIECHMANN J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CREELMAN R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       υY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RATCLIFFE O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yu G, Creelman R, Keddie J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        269 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0166228.
2000US-0197899.
2000US-0227439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US31458
                                                                                                                                                                                                                                                                                                                                                                                                                                             43.0%; Score 681.5;
48.8%; Pred. No. 1.16
tive 35; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Riechmann JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5; DB 22;
1.1e-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Heard J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ratcliffe
                        288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     55.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          useful
of
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                  162
                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
```

							-7 2-	
י מי מי מי מי מי א א א א א א א א א	יטיסיסיסיס געעעעע געעעע	יים מי		אַ אָ מִי מִי מִי מִי מִי מִי מִי	פראססססס מאאא	X D X D X S		RESULT AAG29947 ID AAG XX AC AAG XX DT 17-
10-JUN- 10-JUN- 10-JUN- 14-JUN- 16-JUN- 16-JUN- 17-JUN-		114 - MA 114 - MA 114 - MA 118 - MA 119 - MA 21 - MA 21 - MA 21 - MA	30-APR- 30-APR- 30-APR- 04-MAY- 05-MAY- 06-MAY- 06-MAY- 11-MAY-	06-APR- 06-APR- 16-APR- 19-APR- 21-APR- 23-APR- 23-APR-	25-FEB- 05-MAR- 09-MAR- 09-MAR- 23-MAR- 25-MAR- 29-MAR-	Arabido EP10334 06-SEP-	Arabi Prote hybri termi	T 15 947 AAG29947 AAG29947 17-0CT-2
	MAY - 199 JUN - 199 JUN - 199 JUN - 199 JUN - 199	MAY - 1999 MAY - 1999		R-199 R-199 R-199 R-199 R-199	R-1999; R-1999; R-1999; R-1999; R-1999;	Arabidopsis EP1033405-A2 06-SEP-2000.	Arabidopsis th Protein identi hybridisation termination se	0 **
					N	s tha A2.	sis tha identif ation a ion sequ	and
-Sn66 -Sn66 -Sn66 -Sn66 -Sn66 -Sn66	- SD66	9905-0134221 9905-0134221 9905-0134370 9905-0134768 9905-0134941 9905-0135123 9905-0135123 9905-0135629 9905-0136021	- SD666 - SD6666- - SD666- - SD6666- - SD6666-	- SD666 - SD6666- - SD6666- - SD6666- - SD6666- - SD6666- - SD6666-	000EP-0	thaliana.	thaliana pr tification; n assay; ge sequence.	ii i
01385 01388 01391 01394 01394 01394	013678 01372 01375 01375 01375	01342 01342 01342 01343 01347 01351 01353	01324 01324 01324 01324 01324 01324 01324	)12823 )12871 )12984 )13007 )13044 )13051 )13085	0301439 0121825 0123180 0123548 0125788 0126264	·	<b>=</b> 0	Protein;
42829704	44.000.44	22.0.3.4.1.8.0.1.9.5	56.6.7.6.7.8.7.8.7	0 7 0 0 7 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	0.00 m m m m m m m m m m m m m m m m m m		O)	1; 278
				. •			fragment ll transd mapping;	. · AA
							agment SEQ I transduction pping; gene	
•			•				ID NO On pai	
							D NO: 3571	
							meta n con	
							<pre>metabolic n control;</pre>	
							pathway; promoter;	
							way; oter;	•
					-			
ל אק אק אק אק אק אק	אלים אלים אלים אלים אלים אלים אלים אלים	יסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיס		מים מים מים מים מים מים מים מים מים מים מים מים			אים א אים א א א א א א	מי מ
10-AI 11-AI 12-AI 13-AI 13-AI 16-AI	04-AI 05-AI 06-AI	26-JI 27-JI 27-JI 27-JI 27-JI 28-JI 02-AI 02-AI 02-AI 03-AI	22-11	19-JUL 19-JUL 19-JUL 19-JUL 20-JUL 20-JUL 21-JUL	114-114-114-114-114-114-114-114-114-114	201-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11 1001-11	21-JU 23-JU 24-JU 28-JU	18-JUN 18-JUN 18-JUN 18-JUN 18-JUN 18-JUN 18-JUN 18-JUN
19019	199	,000000000000000		66666666		99999	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	666666666666666666666666666666666666666
00000000								
- SD6 - SD6 - SD6 - SD6 - SD6 - SD6	- SD6 - SD6 - SD6 - SD6 - SD6	9908-01 9908-01 9908-01 9908-01 9908-01 9908-01	800 800 800 800 800 800 800 800 800 800	- SD6	- SD6	- Sn6	- SD6	- SDG
		0145276 0145913 0145918 0145919 0145951 0146386 0146388 0146388 0147038						
56651915	910692 	76 88 86 89 89 89	> B U N O 7 U B B B B B B B B B B B B B B B B B B	44000440	256554270	305.42.	1 3 5 4 3 5 7	100000000000000000000000000000000000000
		-						

```
밁
                                             Š
                                                                       吊
                                                                                           δÃ
                                                                                                                  Query Match
Best Local Similarity
Matches 142; Conserv
121 IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL 180
                                              61
                        70
                                                                       10
                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0150884.
99US-0151065.
99US-0151066.
99US-0151080.
                                                                                                                                                                 990S-0160981.
990S-0160989.
990S-0161404.
990S-0161405.
990S-0161350.
990S-0161361.
990S-0161361.
990S-0161992.
990S-0161992.
990S-0161993.
990S-0161993.
                                                                                                                                                                                                                                                                                                         990S-0160741
990S-0160767
990S-0160768
990S-0160770
990S-0160814
990S-0160815
990S-0160815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0158232.
99US-0158369.
99US-0159293.
99US-0159294.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0155659.
99US-0156458.
99US-0156596.
99US-0157117:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0154039.
99US-0154779.
99US-0155139.
99US-0155486.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0153070.
99US-0153758.
99US-0154018.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0151080.
99US-0151303.
99US-0151438.
99US-0151930.
                                                                                                                                                                                                                                                                                                                                                                                            99US-0159637.
99US-0159638.
99US-0159584.
                                                                                                                                                                                                                                                                                                                                                                                                                                         990S-0159295.
990S-0159329.
990S-0159330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         990S-0157753.
990S-0157865.
990S-0158029.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0149930.
99US-0150566.
                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0159331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-01
                                                                                                                   43.0%; Score 681.5; DB 21;
48.8%; Pred. No. 1.2e-56;
tive 35; Mismatches 59;
                                                                                                                    Indels
                                                                                                                                           Length 278;
                                                                                                                    55;
                                                                                                                   Gaps
```

8;

Search completed: January 23, 2002, 21:11:32 Job time: 3050 sec

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
136.5
132.5
127
127
122.5
121.5
121.5
                                                                                                                                                                                                                       493
394.5
393.5
282.5
282.5
282.5
282.5
282.5
167
                                                                                                                                                                                                                                                                                                                                                Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Issued_Patents_AA:*
1: /cgn2_6/ptodata/2.
2: /cgn2_6/ptodata/2.
3: /cgn2_6/ptodata/2.
                                                                                                                                                                                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               January 23, 2002, 20:22:32; Search time 64.93 Seconds (without alignments) 101.894 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-453-387A-2
1584
 212252 seqs, 22503292 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MGRSPCCEKAHTNKGAWTKE.....RNCQNSNSNGFYSYCRPLDS 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cgn2_6/ptodata/2/1aa/5A_COMB.pep:*
/cgn2_6/ptodata/2/1aa/5B_COMB.pep:*
/cgn2_6/ptodata/2/1aa/5B_COMB.pep:*
/cgn2_6/ptodata/2/1aa/5B_COMB.pep:*
/cgn2_6/ptodata/2/1aa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/2/1aa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                Length
                                               51
51
51
51
51
51
51
760
760
761
372
          US-08-997-251-2

US-08-928-941D-3

US-08-928-941D-3

US-09-280-590A-4

US-09-280-590A-46

US-09-280-590A-17

US-09-018-635-17

US-08-519-103-16

US-09-018-635-19

US-09-018-635-19

US-09-018-635-19

US-09-018-635-19

US-09-018-635-13

US-09-018-635-13

US-08-928-941D-29

US-08-928-941D-1

US-08-928-941D-1
                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 212252
                                                                                                                                                                                                                                                                                                                                                Description
                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                              Sequence
                                                                                                          Sequence
                                                                                                                     Sequence
                                                                                                                                  Sequence
                       Sequence
                                  Sequence
                                            Sequence
                                                          Sequence
                                                                      Sequence
                                                                                   Sequence
                                                                                                                                               Sequence
                                                                                                                                                         Sequence
                                                                                                                                                                        Sequence
                                                                                                                                                                                  Sequence
                                                                                                                                                                                                Sequence
                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                          Appli
Appli
Appli
Appli
Appli
Appli
                                                                   Appli
Appli
Appli
                                                                                                                     Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 1
US-08-722-626B-2
                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                   LENGTH:
```

	4.5	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	
	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	0	90.5	90.5	92	101	112.5	112.5	116.5	116.5	117.5	
	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.8		7.1	7.1	7.4	7.4	7.4	
	1863	1863	1863	1863	1863	1852	1852	1363	1363	1202	1202	412	711	169	169	50	50	50	
	Ν	_	<u>, .</u>	_	Н	N	Н	N	Н	N	٢	N	w	4	4	4	4	4	
AT TOWNSHIP	US-08-603-753D-2	US-08-483-553-2	US-08-480-784-2	US-08-598-591-2	US-08-425-061-16	US-08-825-886-24	US-08-425-061-24	US-08-825-886-23	US-08-425-061-23	US-08-825-886-22	US-08-425-061-22	US-08-741-134-2	US-08-613-009A-21	US-09-280-590A-45		US-09-156-316-6	US-09-156-316-5	US-09-156-316-4	
	Sequence 2	Sequence 2	Sequence 2	Sequence 2	Sequence 1	Sequence 2	Sequence 2	Sequence 2	Sequence 2			Sequence 2	Sequence 21	Sequence 4	Sequence 3	Sequence 6	Sequence 5	Sequence 4	
	, Appli	, Appli	, Appli	, Appli	6, Appl	4	•	23, Appl	•	22, Appl	~	, Appli	1, Appl	5, Appl	5, Appl	, Appli	, Appli	, Appli	_

## ALIGNMENTS

```
STRANDEDNESS: $1
TOPOLOGY: linear
HYPOTHETICAL: NO
ANTI-SENSE: NO
FRAGMENT TYPE: int
CRIGINAL SOURCE:
US-08-722-626B-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/08722626B Patent No. 5939601 GENERAL INFORMATION:
                                                                                                                                                                                                                                 NAME: Pat Hagan
REGISTRATION NUMBER: 27,643
REFERENCE/DOCKET NUMBER: 97-(
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215 563-4100
TELEFAX: 215 563-4044
                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/
EILING DATE: 27-SEP-1996
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                   TELEX:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatil
                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Yang, Yinong
APPLICANT: Klessig, Daniel, F.
TITLE OF INVENTION: NOVEL GENES ASSOCIATED WITH ENHANCED
TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
NUMBER OF SEQUENCES: 9
                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                             TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 1601 Marke
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19103-2307
                                                                                                                                                              278 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             E: Dann, Dorfman, 1
                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IBM Compatible
                                   internal
                                                                                        protein
                                                                                                                            single
                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/08/722,626B
                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                              97-0010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Herrell and Skillman
L Suite 720
```

```
US-08-997-251-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, Application US/08997251 Patent No. 6271440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SENERAL INFORMATION
                                                                                       TELEFAX: (303) 499-80
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: GUBLER, APPLICANT: JACOBSE
                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: AU PN6470/95
PRIOR APPLICATION DATA:
APPLICATION NUMBER
PRIFFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                179
                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 553 amino acid
                                                                                                                                      REGISTRATION NUMBER: 28,547
REFERENCE/DOCKET NUMBER: 11
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: JACOBSEN, JOHN V.
IITLE OF INVENTION: PLANT REGULATORY PROTEINS
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            168
                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 5370 M
CITY: Boulder
STATE: CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        235 NSAESKPKVD-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  119 YKPPQNSKRHSKSKNHDSKGPTTSESSNNSDLTIINTQKHIDSPVLAPN
OLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 LRPDIKRGNFTKEEEETIIQLHEMLGNRWSAIAAKLPGRTDNEIKNVWHTHLKKKL--KD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 23
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 80303
                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: WO AU96/00383 FILING DATE: 21-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                         TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MVRAPCCEKMGLKKGPWIPEEDQILISFIQINGHGNWRALPKQAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDPQTHRPLNQTANTNTVTAPTELDFRNSP--TSVSKSSSIKNPSLDFNYNEFQFKSNTD 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ESSEYFPEIDESFWTDELTTDNNWSSTDHVMVAANQELQVQLPFSS 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---SPQISSSTEMSTVTLVDDHQMVVI--KQEV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLEEPNCTASSGMTT----DEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNA 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION DATA:
                              1: 553 amino acids amino acid
                                                                                                                                                                                                   Winner,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B: Greenlee, Winner and Sullivan, P.C.
5370 Manhattan Boulevard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SD
                                                                                                                         (303) 499-8080
                                                                                                                                                                                                                                                                                                                                                                                                                JMBER: US/08/997,251
23-DEC-1997
                                                                                                                                                                                                                                  JMBER: AU PN3779/95
23-JUN-1995
protein
                                                                                                                                                                                               Ellen P
                                                                                                          499-8089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRANZ J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----NNNFQFLEQAMVAKAVCLCWQLGFGT 270
                                                                                                                                                                            28,547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 493; DB 2;
Pred. No. 5.5e-44;
                                                                                                                                                                 L10-97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-997-251-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
```

밁

밁

밁 S 밁 á 밁

```
Query Match
Best Local Similarity
Matches 107; Conserv
                                                                                                                                                  190
                                                                                                                                                                                   161 NEDQQCSS---DFDCGENLSNDLLNANGLYLP--DFTCD--NFIANSEALPYAPHLSAVS
                                                                                                                                                                                                                       134 NTNTVTAPTELDF---RNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSLE-EPNCTASS 189
                                                                                                                                                                                                                                                                102
                                                                         245
                                                                                                             214
290 RP 291
                                262 QFSNDSEKLKQA-
                                                                                                                                                                                                                                                                                                74 EDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGIDPQTHRPLNOTA 133
                                                                                                                                                                                                                                                                                                                                     42 KGPWTSAEDAILVDYVKKHGEGNWNAVQKNTGLFRCGKSCRLRWANHLRPNLKKGAFTAE 101
                                                                                                                                                                                                                                                                                                                                                        14 KGAWTKEEDQRLINYIRVHGEGGWRSLPKAAGLLRCGKSCRLRWINYLRPDLKRENTEE 73
                                                                                                                                                                                                                                                          EERLIIQLHSKMGNKWARMAAHLPGRTDNEIKNYWNTRIKR-CQRAGLPIYPTSVCNQSS
                                                                                                           ISNLLGQSFASKSCSFMDQVNQTG---
                                                                       -- NNNFQFLEQAMVAKAVCLCWQLGF-
                                                                                                                                              ----GMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESKPKVD
                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   24.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                    49; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 394.5; DB 4
Pred. No. 4.2e-33;
                                      VGFDYLHEANSTSKIIAPFGGALNGSHAFLNGNFSAS
                                                                                                             -MLKQSDGVLPGLSDTINGVISS-----VD
                                                                         -GTSEI-----CRNCONSNSHGFYSYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 553;
                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      55;
                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                     160
                                          310
                                                                            289
                                                                                                                 261
                                                                                                                                                      244
                                                                                                                                                                                          213
                                                                                                                                                                                                                                                                                                                                                                                                                    13;
```

US-08-997-251-2 Patent No. 6271440 Sequence 2, Application US/08997251 GENERAL INFORMATION: APPLICANT: GUBLER, FRANZ J APPLICANT: JACOBSEN, JOHN ' NUMBER OF SEQUENCES: 1 TILE OF INVENTION: STREET: ADDRESSEE: Boulder 5370 Manhattan Boulevard JACOBSEN, JOHN V.
VENTION: PLANT REGULATORY PROTEINS Greenlee, Winner and Sullivan, P.C

OPERATING SYSTEM: PC-D SOFTWARE: Patentin Rel CURRENT APPLICATION DATA: COMPUTER READABLE FORM: COMPUTER: MEDIUM TYPE: COUNTRY: 80303 င္ပ S IBM PC compatible SYSTEM: PC-DOS/MS-DOS Floppy disk Release #1.0, Version #1.30

FILING DATE: 23-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Winner, Ellen P.
REGISTRATION NUMBER: 28, PRIOR APPLICATION DATA: PRIOR APPLICATION DATA: REFERENCE/DOCKET NUMBER: 110-97 TELECOMMUNICATION INFORMATION: PRIOR APPLICATION DATA: FILING DATE: APPLICATION NUMBER: US/08/997,251 FILING DATE: 23-DEC-1997 APPLICATION NUMBER: APPLICATION NUMBER: FILING DATE: APPLICATION NUMBER: CLASSIFICATION: 09-NOV-1995 21-JUN-1996 AU PN3779/95 AU PN6470/95 WO AU96/00383

; MOLECULE TYPE: protein US-08-997-251-2

TOPOLOGY:

linear

INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 553 amino acids
TYPE: amino acid

<u>ب</u>

```
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-928-941D-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
TELEFAX: 201-343-1004
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
156 - mino Acid
                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Jackson Esq., David A.
REGISTRATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 134
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276 LGFDYLHEANSSSKI 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       235 -----NSAESKPKV 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   134 NTNTVTAPTELDF---RNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSLE-EPNCTASS 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       104 EERLIIQLHSKMGNKWARMAAHLPGRTDNEIKNYWNTRIKR-CQRAGLPIYPASVCNQSS 162
                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74
                                                                                                                                                                                                                                                                                                                                      COUNTRY: (
                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 411 Hackensack Ave, Continental Plaza, 4th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14 KGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINYLRPDLKRGNFTEE 73
                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                               MEDIUM TYPE:
                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                               DDRESSEE:
                                                             ELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ce 4, Application US/08928941D
No. 6180763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ISSILGQSFASKNCGFMDQVNQAGMLKQSDPLLPGLSDTINGALSSVDQFSNDSEKLKQA 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEDQQGSS---DFNCGENLSSDLLNGNGLYLP--DFTCD--NFIANSEALSYAPQLSAVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | EDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGIDPQTHRPLNQTA 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KGPWTSAEDAILVDYVKKHGEGNWNAVQKNTGLFRCGKSCRLRWANHLRPNLKKGAFTPE 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97;
                                                                                                                                                                                                                                                                                                                                                                                       Hackensack
                                                                                                                                                                                                                                                                                                                                                                        New Jersey
                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hirai, Hiroshi
Sherr, Charles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           David A. Jackson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -GMTTDEEQQEQLHKKQQYGPSNGQDINLEL-SIGIVSADSSRVSNA 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYCLIN-D BINDING FACTOR, AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24.8%; Score 393.5; DB 4; 38.0%; Pred. No. 5.3e-33;
                                                               -5800
                                                                                                                                                                                                           US/08/928, 941D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35;
                                                                                                   1340-1-002 N CIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels 33; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 553;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-928-941D-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-928-941D-36
                                                                                      US-08-928-941D-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 36, Application US/08928941D Patent No. 6180763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 17.8%;
Best Local Similarity 51.0%;
      Query Match 17.8
Best Local Similarity 51.0
Matches 53; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                  TELEFAX: 201-343-1684 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION: NAME: Jackson Esq., Davi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FRAGMENT TYPE:
ORIGINAL SOURCE:
                                                                                                                    FRAGMENT TYPE: ORIGINAL SOURCE:
                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Hirai, Hiroshi
APPLICANT: Sherr, Charles
TITLE OF INVENTION: CYCLIN-D BINDING FACTOR, AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                113 EEDRIIYQAHKRLGNRWAEIAKLLPGRTDNAIKNHWNSTMRRKV 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73 EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKL 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                55 KGPWTKEEDQRVIKLVQKYGPKRWSVIAKHLKG--RIGKQCRERWHNHLNPEVKKTSWTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14 KGAWTKEEDORLINYIRVHGEGCWRSLPK-AAGLLRCGKSCRLRWINYLRPDLKRGNFTE
                                                                                                                                                                                                                     TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM:
                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                             NAME: Jackson Esq., David A. REGISTRATION NUMBER: 26,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                       ORGANISM:
                                                                                                                                                                                                                                    ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hackensack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floor

    David A. Jackson, Esq.
    Hackensack Ave, Continental Plaza, 4th

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
                                                                                                   Gallus gallus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NO Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                 : protein
YES
                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                internal
17.8%; 5--
51.0%; Pre
51.0%; 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                 US/08/928,941D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                    1340-1-002 N CIP
      Score 282.5; DB Pred. No. 4e-22; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 282.5; DB Pred. No. 4e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4;
                                     DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                      Length 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ω
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ŋ
```

ů.

Gaps

```
ORGANISM: Mus musculus SEQUENCE DESCRIPTION: SEQ ID NO: 4: US-09-280-590A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-280-590A-4
                             Ş
 밁
                                                              밁
                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09280590A Patent No. 6303772 GENERAL INFORMATION:
                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      113
 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Ver.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/280,590A
FILING DATE: 29-Mar-1999
CLASSIFICATION: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Jackson Esq., David A.
REGISTRATION NUMBER: 26,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14 KGAWTKEEDQRLINYIRVHGEGCWRSLPK-AAGLLRCGKSCRLRWINYLRPDLKRGNFTE 72
                               73
                                                                55
                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION: TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                 LENGTH: 156 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                   HYPOTHETICAL: NO FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: CYCLIN-D BINDING FACTOR, AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Hirai, Hiroshi
                                                                                                                                                                                                                                                                    ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKL 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KGPWTKEEDQRVIELVQKYGPKRWSVIAKHLKG--RIGKQCRERWHNHLNPEVKKTSWTE 112
EEDRIIYQAHKRLGNRWAEIAKLLPGRTDNAIKNHWNSTMRRKV
                           EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKL 116
                                                              KGPWTKEEDQRVIKLVQKYGPKRWSVIAKHLKG--RIGKQCRERWHNHLNPEVKKTSWTE 112
                                                                                                                                  5<u>3</u>;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Hackensack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: David A. Jackson, STREET: 411 Hackensack Ave,
                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 201-343-1684
                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Inoue, Kazushi
Bodner, Sarah M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sherr, Charles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                                  17.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THEREOF
                                                                                                                                  20;
                                                                                                                                                Score 282.5; DB Pred. No. 4e-22;
                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1340-1-002 N CP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Continental Plaza, 4th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Version #1.30
                                                                                                                                                                DB 4;
                                                                                                                                  28
.
 156
                                                                                                                                                                Length 156;
                                                                                                                                  Indels
                                                                                                                                 Gaps
                                                                                                                                  'n
                                                                                                                                                    밁
                                                                                                                                                                                   ş
                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                   RESULT
                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                     Query Match
                                                  Patent No.
                                                                                                                                                    113
                                                                                                                                                                                                                     55
```

```
ORGANISM: Gallus gallus ; SEQUENCE DESCRIPTION: SEQ ID NO: 46: US-09-280-590A-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-280-590A-46
                                                                                             US-08-519-103-17; A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 46, Application US/09280590A Patent No. 6303772 GENERAL INFORMATION:
                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
APPLICANT: deLange, TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                  73 EEDELIIKLHSLLGNKWSLIÄGRLPGRTDNEIKNYWNTHIKRKL 116
                                                                                                                                                                                                                                                                                               14 KGAWTKEEDQRLINYIRVHGEGCWRSLPK-AAGLLRCGKSCRLRWINYLRPDLKRGNETE 72
                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Hirai, Hiroshi
Sherr, Charles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 07601
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: David A. Jackson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FRAGMENT TYPE: < ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYPOTHETICAL: YES
                                                                                                                                                                                                                                                                         KGPWTKEEDQRVIELVQKYGPKRWSVIAKHLKG--RIGKQCRERWHNHLNPEVKKTSWTE 112
                                                                                                                                                                                            EEDRIIYQAHKRLGNRWAEIAKLLPGRTDNAIKNHWNSTMRRKV 156
                                                                                                                                                                                                                                                                                                                                                        53;
                                                                           7, Application US/08519103 5733730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Jackson Esq., David A.
REGISTRATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 1340-1-002 N CP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/280,590A FILING DATE: 29-Mar-1999 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Hackensack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 201-343-1684
                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Inoue, Kazushi
Bodner, Sarah M.
WYENTION: CYCLIN-D BINDING FACTOR, AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E: David A. Jackson, Esq. 4th 411 Hackensack Ave, Continental Plaza, 4th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E LOOI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <Unknown>
                                                                                                                                                                                                                                                                                                                                                                      17.8%;
  TELOMERE REPEAT BINDING FACTOR AND DIAGNOSTIC AND THERAPEUTIC USE THEREOF
                                        Titia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Charles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THEREOF
                                                                                                                                                                                                                                                                                                                                                      20;
                                                                                                                                                                                                                                                                                                                                                      Score 282.5; DE
Pred. No. 4e-22;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                             DB 4;
                                                                                                                                                                                                                                                                                                                                                        28;
                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                               156;
                                                                                                                                                                                                                                                                                                                                                        ů.
                                                                                                                                                                                                                                                                                                                                                        Gaps
```

ÿ

NUMBER OF SEQUENCES: 2 CORRESPONDENCE ADDRESS:

```
₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-018-635-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TOPOLOGY: 1:
; MOLECULE TYPE:
US-08-519-103-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 133521
INFORMATION FOR SEQ ID NO:
                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: rloppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                       APPLICANT: de Lange, Titia
APPLICANT: Broccoli, Dominique
APPLICANT: Smogorzewska, Agata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 51 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 60
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-487-5800
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: David A. Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                           UMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                           ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65 LKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: ZUL ... TELEPHONE: ZUL ... 1684
                                                                                                                                                                                                                          STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Crane-Feury, Sharon E. REGISTRATION NUMBER: 36,113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 25
CLASSIFICATION:
                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VKKSCWTEEEDRIICEAHKVLGNRWAEIAKMLPGRTDNAVKNHWNSTIKRK 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE :
                                                                                                                                                                                                                                                                                                                                                                                                                               17, Application US/09018635
o. 6297356
                                                                                                                                                                                            07601
                                                                                                                                                                                                                                          Hackensack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hackensack
                                                                                                                                                                                                                          New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New Jersey
                                                                                                                                                                                                                                                        411 Hackensack Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           411 Hackensack Avenue
                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SS: single
linear
                                                                                                                                                                                                                                                                          KLAUBER & JACKSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KLAUBER & JACKSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         υνώσεκ: US/08/519,103
25-AUG-1995
1: / Γ
                                                                                                                                                                                                                                                                                                                         TELOMERE REPEAT BINDING FACTOR AND DIAGNOSTIC AND THERAPEUTIC USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10.5%;
                                                                    US/09/018,635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600-1-142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 167; DB 1; Pred. No. 1.1e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

γQ

65 LKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK 115

Query Match Best Local

Local

1 Similarity 28; Conserv

Conservative

12;

Mismatches

11;

Indels

0,

0,

10.3%;

Score 163; Pred. No. :

3e-10;

Matches

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-519-103-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-018-635-17
                                              ) MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                  TELEX: 133521
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                 CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                               TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/0 FILING DATE: 25-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65 LKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK 115
                                                                            TOPOLOGY:
                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 56.9 es 29; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX:
                                                                                                                                                                                TELEFAX:
                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                           REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 VKKSCWTEEEDRIICEAHKVLGNRWAEIAKMLPGRTDNAVKNHWNSTIKRK 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16, Application US/08519103
o. 5733730
                                                                                                                                                                                                                                                                                                                                                                                                                           0760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hackensack
                                                                                                   amino acid
                                                                                                                                                                                                                                        Crane-Feury, Sharon E. RATION NUMBER: 36,113
                                                                                                                                                                                                                                                                                                                                                                                                                                                        New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   411 Hackensack Avenue
                                                                                                                                                                                201-343-1684
                                                                                                                                                                                                                                                                                                                                                                                                                                          USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            deLange,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201-343-1684
                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KLAUBER & JACKSON
                                                                                       single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELOMERE REPEAT BINDING FACTOR AND DIAGNOSTIC AND THERAPEUTIC USE THEREOF
                                                                                                                                                                                                                                                                                                                    us/08/519,103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11;
                                                                                                                                                                                                                             600-1-142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600-1-142 CIP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 167; DB 4;
Pred. No. 1.1e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 51;
Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
```

```
밁
                                                                                                                                                                                                                         US-09-018-635-16
                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide -08-519-103-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 19, Application US/08519103
                                                                                                                                                                                    Sequence 16, Appl
Patent No. 629735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENERAL INFORMATION: APPLICANT: deLang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: 133521
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Relea
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/0
FILING DATE: 25-AUG-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 51 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FITLE OF INVENTION:
                                                                              APPLICANT: de Lange, Titia
APPLICANT: Broccoii, Dominique
APPLICANT: Smogorzewska, Agata
TITLE OF INVENTION: TELOMERE REPEAT BINDING FACTOR AND
TITLE OF INVENTION: DIAGNOSTIC AND THERAPEUTIC USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                               65 LKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: UZIP: 0760:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Hackensack
STATE: New Jerse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Crane-Feury, Sharon E. REGISTRATION NUMBER: 36,113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
              STREET:
                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                           1 IKKTAWTEKEDEIIYQAHLELGNQWAKIAKRLPGRTDNAIKNHWNSTMRRK 51
                                                                                                                                                                     INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New Jersey
Hackensack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        133521
                                                                                                                                                                                                     Application US/09018635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          411 Hackensack Avenue
                411 Hackensack Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201-343-1684
                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KLAUBER & JACKSON
                              KLAUBER & JACKSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELOMERE REPEAT BINDING FACTOR AND DIAGNOSTIC AND THERAPEUTIC USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                               10.3%; Score 163; DB 1 56.9%; Pred. No. 3e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US/08/519,103
                                                                                                                                                                                                                                                                                                                                                                 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600-1-142
                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                 10;
                                                                                                                                                                                                                                                                                                                                                                                             Length 51;
                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                  0;
```

```
US-09-018-635-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Ches 28; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: David A. Jackson
REGISTRATION UNMER: 26,742
REFERENCE/DOCKET NUMBER: 600-
TELECOMMUNICATION INFORMATION:
TELEPRONE: 201-487-5800
TELEFAX: 201-343-1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 133521
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
COMPUTER: IBM PC com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 51 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                              ATTORNEY/AGENT INFORMATION:
NAME: David A Jackson
REJERATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 600-1-142 CIP1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-487-5800
                                                                                                                                                                                    SOFTWARE: PatentIn Relicurrent Application Number: US, Application Number: US,
                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65 LKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
TOPOLOGY: 11r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                              COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                              CITY: Hackensack
                                                                                                                                                                                                                                                                                                                                                                              STREET:
                            TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 VKKSSWTEEEDRIIYEAHKRLGNRWAEIAKLLPGRTDNSIKNHWNSTMRRK 51
                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                      FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ), Application US/09018635 6297356
                                                                                                                                                                                                                                                                                                                                          New Jersey
                                                                                                                                                                                                                                                                                                                                                                              411 Hackensack Avenue
                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  de Lange, Titia
Broccoli, Dominique
                                201-343-1684
                                                                                                                                                                                                                      PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Smogorzewska,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ss: single
linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                  KLAUBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10.3%; sec. No. 54.9%; Pred. No. 54.9%; Pred. No. 54.9%; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                TELOMERE REPEAT BINDING FACTOR AND DIAGNOSTIC AND THERAPEUTIC USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                & JACKSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US/09/018,635
                                                                                                                                                                                      US/09/018,635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Agata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16:
19:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600-1-142 CIP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 163; DB 4
Pred. No. 3e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4; Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

0,

INFORMATION FOR SEQ ID NO:

```
RESULT 15
US-09-018-635-18
; Sequence 18, Application US/09018635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                           밁
                                                                                                  Ş
                                                                                                                                                                                                                             TELLEFAX: ZUL
TELEX: 133521
INFORMATION FOR SEQ ID NO: 18-
SEQUENCE CHARACTERISTICS:
LENGTH: 51 antho acids
TYPE: maino acid
TYPE: Maino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-519-103-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; MOLECULE TYPE: US-09-018-635-19
                                                                                                                                 Matches
                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 5733730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 51 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                           NAME: Crane-Feury, Sharon E REGISTRATION NUMBER: 36,113 REFERENCE/DOCKET NUMBER: 60 TELECOMMUNICATION INFORMATION: TELEPHONE: 201-487-5800
                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Rel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 411...CITY: Hackensack ...CITY: New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                      65 LKRGNETEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK 115
:|:::||||| : | | |||:|: || ||||||| |||: |:||
1 VKKTSWTEEEDRIIYQAHKRLGNRWAEIAKLLPGRTDNAIKNHWNSTMRRK 51
                                                                                                                                                                                                                                                                                                                    TELEPHONE: ZUI TELEPHONE: ZUI TELEPHONE: ZUI TELEPHONE: 201-343-1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  411 Hackensack Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        deLange, Titia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KLAUBER & JACKSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                  25-AUG-1995
N: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Floppy disk
                                                                                                                                                                                                                  peptide
                                                                                                                          10.1%; 50-
54.9%; Pre
12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10.3%; Score 163; DB 4 56.9%; Pred. No. 3e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELOMERE REPEAT BINDING FACTOR DIAGNOSTIC AND THERAPEUTIC USE
                                                                                                                                                                                                                                                                                                                                                                          36,113
38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/08/519,103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12; Mismatches
                                                                                                                                Score 160; DB 1;
Pred. No. 6.2e-10;
12; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                          600-1-142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                                                                                                                                                          Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : AND
: THEREOF
                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
```

δõ

0

Search completed: January 23, 2002, 21:12:49 Job time: 3017 sec

```
B
                                                                                                                                                            ; MOLECULE TYPE: peptide US-09-018-635-18
                                                                        Matches
                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                TELEX: 133521
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: David A. Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Smogorze TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: de Lange, Titia
APPLICANT: Broccoli, Dominique
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
65 LKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK 115
:|:::||||:|::||
1 VKKTSWTEEEDRIIYQAHKRLGNRWAEIAKLLPGRTDNAIKNHWNSTMRRK 51
                                                                      Local Similarity 54.9
nes 28; Conservative
                                                                                                                                                                                                 TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 26 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                          TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: UZIP: 07601
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/018,635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                   CENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hackensack
                                                                                                                                                                                                                                H: 51 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6297356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New Jersey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       411 Hackensack Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Smogorzewska, Agata
VENTION: TELOMERE REPEAT BINDING FACTOR AND
VENTION: DIAGNOSTIC AND THERAPEUTIC USE THEREOF
                                                                                                                                                                                                                                                                                                                          201-343-1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KLAUBER & JACKSON
                                                                                                                                                                                                                single
                                                                                       10.1%;
                                                                                                                                                                                                                                                                                                                                                                                            26,742
                                                                                                                                                                                                                                                                                      18:
                                                                        12;
                                                                                                                                                                                                                                                                                                                                                                              600-1-142 CIP1
                                                                      Score 160; DB 4;
Pred. No. 6.2e-10;
2; Mismatches 11
                                                                                                      Length 51;
                                                                      Indels
                                                                      0;
                                                                      Gaps
```

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
             704.5
702.6
693
684
683
681.5
681.5
684.5
549.5
549.5
549.5
549.5
549.5
533.5
533.5
533.5
533.5
                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                         Query
                                                                                                                                                                                                                                                                                                                                                                                               Match
                                                                                                                                                                                                                                                                                                                   100.0
53.9
48.5
48.1
47.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       January 23, 2002, 20:25:27; Search time 60.99 Seconds (without alignments) 367.197 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-453-387A-2
1584
1 MGRSPCCEKAHTNKGAWTKE.....RNCQNSNSNGFYSYCRPLDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR_68:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     219241 seqs, 76174552 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pir1:*
pir2:*
pir3:*
pir4:*
                                                                                                                                                                                                                                                                                                                                                                                               Length DB
                                                                                                                                                                                                                                                                                                                                                                                               Ħ
                                                                                                                                                                                                                                                                                                     S35729
S69189
                                                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                              hypothetical prote
myb protein - rice
mYB-like protein [
myb-related protei
                                                                                                                                                                                                                                                                                                                               myb-related
DNA-binding
                                                                                                                                                                                                                                                                                                                                                        myb-related myb-related
                                                                                                                                           myb-related protein myb-related protein protein F1504.43 [
                                                                                                                                                                                                                                                                            myb-related
                                                                                                                                                                                                                                                                                          myb-related
                                                                                                                                                                                                                                                                                                                 myb-related
                                                                                                                                                                                                                                                                                                                                                                                               Description
            hypothetical prote
myb-related protei
myb-related protei
                                                                                                                                                                                               myb-related
                                                                                                                                                                                                            myb-related
                                                                                                                                                                                                                         myb-related
                                                                                                                                                                                                                                      probable transcrip
myb-related protei
                                                                                                                                                                                                                                                                                                     myb-related
                                                                                                                                                                                  probable MYB famil
probable DNA-bind.
                                                                                                      myb-related transc
                                                                                                                 probable transcrip
probable transcrip
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        294
                                                                                                                                                                                                                                                              l transc
                                                                                                                                                                                                                                                                                                   protei
protei
protei
protei
                                                                                                                                                                                             protei
                                                                                                                                                                                                                                                                                          transc
                                                                                                                                                                                                                       prote
```

<u>4</u> 5	44	43	42	41	40	39	38	37	36	ω 5	34	ω ω	32	31	30	
505.5	507.5	507.5	.509	509	510	511.5	513	514	515.5	515.5	517.5	518.5	520.5	522	524	
31.9	32.0	32.0	32.1	32.1	32.2	32.3	32.4	32.4	32.5	32.5	32.7	32.7	32.9	33.0	33.1	
343	263		421	278	365	371	333	453	371	334	352	336	369	299	249	
N	N	ນ	ب	N	N	N	N	N	N	N	N	N	N	N	_	
T48050	T48607	E84717	S24244	T51641.	D86470	T51636	G96768	T09745	T00438	T50816	T51659	T51644	T01196	T47917	S68688	
probable tran	probable tran	probable MYB	ted p	myb-related t	hypothetical prot	myb-related t	proteinmtranscript	myb-related p	probable MYB fami	probable transcrip	myb-related t	probable tran	transcription	probable transcri	myb-related p	
cranscrip	transcrip	fam11	protei	transc	prote	transc	eript	protei	famil	scrip	transc	transcrip	tact	scrip	prote1	

## ALIGNMENTS

RESULT 2 JO0957 myb-related protein 330 - garden snapdragon C; Species: Antirrhinum majus (garden snapdragon) C; Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 24-Jul-1997 C; Accession: JO0957	QY 241 PKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGFYSYCRPLDS 294	Qy 181 EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESK 240	QY 121 IDPOTHRPLNOTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL 180	OY 61 LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120	OY 1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60	Query Match 100.0%; Score 1584; DB 2; Length 294; Best Local Similarity 100.0%; Pred. No. 2e-111; Matches 294; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	C;Genetics: A;Gene: MYB A C;Superfamily: barley myb-related protein 1; myb DNA-binding repeat homology C;Keywords: DNA binding; transcription regulation C;Keywords: myb DNA-binding repeat homology <myb></myb>	A; Residues: 1-294 <wil> A; Cross-references: EMBL:L04497; NID:g437326; PID:g437327</wil>	R;Wilkins, T.A; Lu, C.C. submitted to the EMBL Data Library, January 1994 A;Reference number: Z16894 A;Reference number: Z16894	RESULT 1 109879 myb-related protein A - upland cotton C;Species: Gossypium hirautum (upland cotton) C;Date: 16-Unl-1999 #sequence_revision 16-Jul-1999 #text_change 26-Aug-1999	CTINITINICAL

C; Accession: ogosov

```
A;Introns: 45/1; 88/2
C;Superfamily: barley myb-related protein 1; myb DNA-binding C;Keywords: DNA binding; duplication; nucleus; transcription C;Keywords: DNA binding; duplication; nucleus; transcription F;9-61/Domain: myb DNA-binding repeat homology <MYB1>
F;62-112/Domain: myb DNA-binding repeat homology <MYB2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Experimental source: strain JI:522
C;Superfamily: barley myb-related protein 1; myb DNA-binding repeat homology C;Keywords: DNA binding; duplication; nucleus; transcription regulation E;9-61/Domain: myb DNA-binding repeat homology <MYB1>
F;62-112/Domain: myb DNA-binding repeat homology <MYB2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Vysotskaia, V.S.; Schwartz, J.R.; Toriumi, M.; Yu, G.; Oji, rtz, D.; Li, Y.; Palm, C.J.; Shinn, P.; Sun, H.; Davis, R.W.; submitted to the EMBL Data Library, July 1998
A;Description: Arabidopsis thaliana chromosome 1 BAC T22J18 se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Jackson, D.; Culianez-Macia, F.; Prescott, A.G.; Plant Cell 3, 115-125, 1991
A;Title: Expression patterns of myb genes from AntiA;Reference number: JQ0956; MUID:93005689
A;Accession: JQ0957
  밁
                                  Š
                                                                                                                                                                                                                                                                      A; Map position:
                                                                                                                                                                                                                                                                                            A; Gene: ATSP: T22J18.19
                                                                                                                                                                                                                                                                                                                                   A; Experimental source:
                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-257 < VYS>
                                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number: 214202
A; Accession: T00780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Accession: T00780
R; Vysotskaia, V.S.; Schwartz,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 myb-related protein T22J18.19 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 22-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-274 < JAC>
                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: translated from GB/EMBL/DDBJ
                                                                          Query Match
Best Local S
Matches 160
                                                                                                                                                                                                                                                                                                                                   ;Cross-references: EMBL:AC003979; NID:g3172156; PIDN:AAC25522.1; PID:g32694; GSPDB:GN0;Experimental source: cultivar Columbia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                    MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SSSSGFYD----LFRPPAKVAQRMCVCKWTLGLQKGEQFCNCQ--SFNGFYRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TDSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IDPQTHRPLNQTANTNTVTAPTE----LDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSN 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AESKPKVDNNNFQFLEQAMVAKAVCLC-WQLGFGTSEICRNCQNSNSNGFYSYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSSTDDTKCNSS----TTEESQSLITPPPKEEEKSVPLVDLELSLGLPSQSQCNKSVSLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDPQTHRSLNSATTTATAT-PTVNNSCLDFRTSP---SNSKNICMPTTDNNNN-----S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGRSPCCEKAHTNKGAWTKEEDQRLINYIRAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
MGRSPCCEKAHMNKGAWTKEEDQLLVDYIRKHGEGCWRSLPRAAGLQRCGKSCRLRWMNY
                                                                              160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    53.9%;
                                                                                              48.5%;
                                                                              33
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 854.5; DB 1;
Pred. No. 7.6e-57;
                                                                                          Score 768; DB 2;
Pred. No. 2.1e-50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antirrhinum flowers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Roberts, K.; Martin,
                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence,
                                                                                                                                                                                                             repeat homology regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O.; Kwa
Ecker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kwan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        an, A.; Liu,
J.R.; Feder:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complete
60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Federspiel,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                            7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :
:
                            s35729
myb-related protein 2 - barley
N;Alternate names: myb2 protein; MybHv5
C;Species: Hordeum vulgare (barley)
C;Date: 03-Mar-1994 #sequence_revision
C;Date: 03-Mar-1994; S31813; S61507
                                                                                                                                 RESULT
S35729
                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Map position: 4
C; Superfamily: Arabidopsis myb-related protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Sequence and analysis of chromosome A;Reference number: A85001; MUID:20083488 A;Accession: D85096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA-binding protein [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                    C;Accession:
R;Rohde, W.
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Gene: AT4g09460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-236 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; anonymous, The European Union Nature 402, 769-777, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
    submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                      239
                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                            164
                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                         G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MGRSPCCEKAHTNKGAWTKEEDQRLVDYIRNHGEGCWRSLPKSAGLLRCGKSCRLRWINY
  ç
                                                                                                                                                                                                                  SKPWCD 226
                                                                                                                                                                                                                                                                                          SSD-NGASTSGTTTDEDLRQ--NGECYYSDNSGHIKLNLDLTLGFGSWSGRIVGVGSSAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                  LRPDLKRGNFTDDEDQIIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLLSHG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VDSAESTRRWGSELF ---- GAHESDAVCLCCRIGLFRNESCRNCRVSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ANSAESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EEP----NCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIG-IVSADSSR-VSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDPNSHRLINE - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLLSRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                      SKPKVD
                                                                                                                                                                                                                                                                                                                                 LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ-DINLELSIGIVSADSSRVSNANSAE
                                                                                                                                                                                                                                                                                                                                                                       IDPQTHRQINESKTVSSQVVVP---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REEIGMVNNC-ESSGTTSEKD----
                                                                                                                                                                                                                                                                                                                                                                                                         IDPOTHRPLNOTANTNT~VTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDS
    the
                                                                                                                                                                                                                                                    244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GB:NC_001268; NID:g7267641; PIDN:CAB78069.1;
  Data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48.1%; Score 762; DB 2; 58.9%; Pred. No. 5.3e-50;
  Library, January
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arabidopsis Genome Sequencing
                                                                                              MybHv5 protein
                                                                                                                                                                                                                                                                                                                                                                       ------IQNDAVEYSFSNLAVKPKTEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-Feb-2001 #text_change
                                                          26-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -YGNEEDWVLNLELSVGPSYRYESTRKVSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -SVVSPSSLQNDVVETIHLDFSGPRKPEPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        myb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the
                                                            #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Consortium, The Cold
                                                            18-Jun-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-Mar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GSPDB:GN00140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                   238
                                                                                                                                                                                                                                                                                                                                                                         163
                                                                                                                                                                                                                                                                                                                                                                                                               179
                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          homology
```

Ģ

```
A;Cross-references: EMBL:X70876; NID:g19054; PIDN:CAA50221.1; PID:g19055
R;Wissenbach, M.; Ueberlacker, B.; Vogt, F.; Backer, D.; Salamini, F.; Rohde, W.
submitted to the EMBL Data Library, January 1993
R;Description: Myb gene from hordeum vulgare: tissue-specific expression of chimeric
                                                                              R:Lin, Q.; Hamilton, W.D.O.; Merryweather, A. Plant Mol. Biol. 30, 1009-1020, 1996 A;Title: Cloning and initial characterization A;Reference number: S69189; MUID:96270378 A;Accession: S69189
                                                                                                                                                                                     C; Date: 06-De
C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   γ
                    A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-273 <LIN>
                                                                                                                                                                                                                                                             myb-related protein TMH27 - tomato
                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Introns:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:X70880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-117 <WI2>
A;Cross-references: EMBL:X95296; NID:gl167483;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;Cross-references: EMBL:X70880; NID:g19056; PIDN:CAA50225.1; PID:g19057;Wissenbach, M.; Ueberlacker, B.; Vogt, F.; Becker, D.; Salamini, F.; R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lant J. 4, 411-422, 1993

Title: Nyb genes from Hordeum vulgare: 1

;Reference number: S61506; MUID:94035190

;Accession: S61507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reference number: S31813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Introns: 88/2
Superfamily: barley myb-related protein 1; myb DNA-binding Superfamily: barley myb-related protein 1; myb DNA-binding Reywords: DNA binding; duplication; nucleus; transcription; 9-61/Domain: myb DNA-binding repeat homology <MYB1>
                                                                                                                                                                                            ;Species: Lycopersicon esculentum (tomato);Date: 06-Dec-1996 #sequence_revision 13-Mar-1997;Accession: S69189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gene: myb2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Residues: 1-104 <WIS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Reference number: Accession: $35729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62-112/Domain: myb DNA-binding repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Accession: S31813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Molecule type: mRNA
Residues: 1-251 <ROH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGRSPCCEKEHTNKGAWTKEEDQRLIAYIRANGEGCWRSLPKAAGLLRCGKSCRLRWMNY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     preliminary; nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                               ESKPKVDNNNFOFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNS----NGFYSYCRPLD 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MDPHTHRPLTAVIDAAAPTRPAQIAVPARAAPTTMFALPTKQQQPPVPVESSDDDGSSGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDPQTHRPLNQTANTNTVTAPTEL -- DFRNSPTSV-SKSSSIKNPSLDFNYNEFQFKSNT 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LRPDLKRGNFTDDEDELIIRLHSLLGNKWSLIAGQLPGRTDNEIKNYWNTHIKRKLLSRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGRSPCCEKAHTINKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S35419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               47.8%;
                                                                                                                                                                                                                                                                                                                                                                       TSHPVCLCRHLGFRGGEAC .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 756.5; DB 1;
Pred. No. 1.5e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tissue-specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                          -PDLNLDLSVGPPAADTP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          not shown
                                                                                                                                  of.
    PIDN:CAA64614.1;
                                                                                                                                                                                                                                                                                                                                                                       -SCRQADSAGSQGGGFRYFRPLE
                                                                                                                                  14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55
                                                                                                                                                                                                                   #text_change
                                                                                                                               myb-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        expression of chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat homology
                                                                                                                                                                                                                       16-Jun-2000
                                                                                                                                  CDNAS
  PID:g1167484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                  from tomato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rohde,
                                                                                                                                                                                                                                                                                                                                                                           246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        МУЬ
                                                                                                                                  ( Lyco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Myt
```

```
C;Superfamily: barley myb-related protein 1; myb DNA-binding C;Keywords: DNA binding; duplication; nucleus; transcription. F;9-61/Domain: myb DNA-binding repeat homology <MYB1> F;62-112/Domain: myb DNA-binding repeat homology <MYB2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                      Qy
                                                             В
                                                                                         δÃ
                                                                                                                             밁
                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                        A;Map position: 4
A;Introns: 88/2
A;Introns: 88/2
A;Note: F20M13.180
C;Superfamily: barley myb-related protein 1; myb DNA-binding C;Keywords: DNA binding; duplication; nucleus; transcription F;9-61/Domain: myb DNA-binding repeat homology <MYB1>F;62-112/Domain: myb DNA-binding repeat homology <MYB>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R; Bevan, M.; Wedler, H.; Kutzner, submitted to the Protein Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      myb-related transcription factor MYB4 - Arabidopsis thaliana N;Alternate names: protein F20M13.180 C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Reference number: Z15420
A; Accession: T05690
밁
                                                                                                                                                                                                                                                                                                                                                                                                                         A; Experimental source: cultivar Columbia; BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-282 <BEV>
                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Cross-references: EMBL; AL035540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                            Gene: MYB4
                                                                                                                                                                                            Matches 146;
                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                           Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hes 151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.81
121
                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                              61
                                                                                                                                                                                                             Local Similarity
                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                            1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QQLDHHRHH-----QRSSSLCFTCSLGIQNSKDCSCGSESNGNGW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PKVDNNHQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGRSPCCEKAHTNKGAWTKEEDERLISYIRAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                 LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMINIKAEFVETSKESDNNEI - - IQEKSSSCLPDLNLELRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDPTTHRSI----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDPOTHRPLNOTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDENYNEFOFKSNTDSL
                  IDPQTHRPLNQTANTNTVTAPTELDFRNSPT-SVSKSSSIKNPSLDFNYNEFQFKSNTDS
                                                                                                                             MGRSPCCEKAHTNKGAWTKEEDERLVAYIKAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                              LRPDLKRGNETEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIRRKLINRG
IDPTSHRPI-QESSASQDSKPTQLEPVTSNTINISFTSA---PKVETFHESISFPGKSEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                           45.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----NDPTTIPKVTTITFAAAHENIKDIDQQD----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26;
                                                                                                                                                                                            38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 728; DB 1;
Pred. No. 2.2e-47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          X
                                                                                                                                                                                                           Score 723; DB 2;
Pred. No. 5.5e-47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database,
                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wambutt,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             February
                                                                                                                                                                                                                                                                                                                                                                                                                          clone F20M13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bancroft,
ry 1999
                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            н.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat homology
                                                                                                                                                                                                                                                                                                            repeat hom regulation
                                                                                                                                                                                               48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-Aug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mewes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -SPPHH
                                                                                                                                                                                                                                                                                                                             homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
   176
                                                                                                                                 60
                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                120
                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            H.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                               7;
```

Mayer

밁 ş 밁 5

```
myb-related protein 308 - garden snapdragon
C;Species: Antirrhinum majus (garden snapdragon)
C;Date: 30-Sep-1991 #sequence_revision 30-Sep-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Kranz, H.D.; Denekamp, M.; Greco, R.; Jin, H.; Kranz, Paz-Ares, J.; Weisshaar, B.
Plant J. 16, 263-276, 1998
A;Title: Towards functional characterisation of the meml A;Reference number: Z14349; MUID:9839469
A;Accession: T51632
A;Experimental source: strain JI:522
C;Comment: The gene encoding for this protein is expressed in all plant organs
C;Superfamily: barley myb-related protein 1; myb DNA-binding repeat homology
C;Keywords: DNA binding; duplication; nucleus; transcription regulation
                                                                                                                                                                                                                                             C; Accession: JQ0960
R; Jackson; D.; Culianez-Mac
Plant Cell 3, 115-125, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   myb-related transcription factor MYB4 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 18-Aug-2000 #sequence_revision 18-Aug-2000 #text_change 02-Sep-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL;AF062860; PIDN:AAC83582.1
A;Experimental source: cultivar Columbia
                                                                                                               A; Residues: 1-232 < JAC>
                                                                                                                                        A; Molecule type: mRNA
                                                                                                                                                                 A; Title: Expression patterns of myb genes A; Reference number: JQ0956; MUID: 93005689 A; Accession: JQ0960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Residues: 1-282 <KRA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Superfamily: barley myb-related protein 1; myb DNA-binding repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
nes 145; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _
                                                                                                                                                                                                                                                                                                                                                                                                                                    ဖ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RCFKCSLGMINGMECRCGRMRCDVVGGSSKGSDMSNGFDFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----SIGIVSADSSRVSNAN----SAESKPKVDNNNFQFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RCFKCSLGMINGMECRCGRMRCDVVGGSSKGSDMSNGFDFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLEL --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLEL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDPTSHRPI-QESSASQDSKPIQLEPVTSNTINISFTSA---PKVETFHESISFPGKSEK 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDPOTHRPLNQTANTNTVTAPTELDFRNSPT-SVSKSSSIKNPSLDFNYNEFOFKSNTDS 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGRSPCCEKAHTNKGAWTKEEDERLVAYIKAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T51632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----SMLTFKEEKDECPVQEKF-----PDLNLELRISLPDDVDRLQGHGKSTTP
                                                                                                                                                                                                                                                                        Culianez-Macia, F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGIVSADSSRVSNAN----SAESKPKVDNNNFQFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     45.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 717; DB 2;
Pred. No. 1.6e-46;
                                                                                                                                                                                                                                                                      Prescott,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----PDLNLELRISLPDDVDRLQGHGKSTTP 222
                                                                                                                                                                                                                       from Antirrhinum flowers
                                                                                                                                                                                                                                                                        A.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               50;
                                                                                                                                                                                                                                                                                                                            #text_change 24-Jul-1997
                                                                                                                                                                                                                                                                           Roberts,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           members
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H.D.; Denekamp, M.; Greco,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the R2R3-MYB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      219
                                                                                                                                                                                                                                                                           O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   probable transcription factor MYB3 [imported] - Arabidopsis thaliana (Species: Arabidopsis thaliana (mouse-ear cress) C:Date: 18-Aug-2000 #sequence_revision 18-Aug-2000 #text_change 02-SeC:Accession: T51631 R:Kranz, H.D.; Denekamp, M.; Greco, R.; Jin, H.; Kranz, H.; Denekamp, M.; Greco, R.; Denekamp, M.; Greco, R.; Denekamp, M.; Greco, R.; Denekamp, M.; Greco, R.; Denekamp,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Paz-Ares, J.; Weisshaar, B. Plant J. 16, 263-276, 1998 A;Title: Towards functional characterisation A;Reference number: Z14349; MUID:9839469 A;Accession: T51631
                                                                                                                                     Ş
                                                                                                                                                                                            밁
                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                               ğ
                                                                                                                                                                                                                                                                                                                                                                                                         멁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F;9-61/Domain: myb DNA-binding repeat homology <MYBl> F;62-112/Domain: myb DNA-binding repeat homology <MYB
                                õ
                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Superfamily: barley myb-related protein 1; myb DNA-binding repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Gene: MYB3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:AF062859; PIDN:AAC83581.1
A;Experimental source: cultivar Columbia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-246 < KR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      · δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Status: preliminary; translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                   246
                                                                                          161
                                                                                                                                                                                               121
                                                                                                                                                                                                                                                133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                      62
                                                                                                                                                                                                                                                                                                                                                        73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                             13 NKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINYLRPDLKRGNFTE
                                                                                                                                                                                                                                                                                                                                                                                                            N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MGRSPCCEKAHTNKGAWTKEEDORLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
        NNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSN
                                                                                                                                                                                                                                             ANTINTYTAPTELDFRISPTSVSKSSSIKIPSLDFNYNEFQFKSNTDSLEEP-----NCTA 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MGRSPCCEKAHTNKGAWTKEEDDRLVAYIRAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                        SSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIG-IVSADSSR-VSNANSAESKPKVDN
                                                                                                                                                                                                                                                                                                      EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLLSRGIDPNSHRLINE-
                                                                                                                                                                                                                                                                                                                            EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGIDPQTHRPLNQT
                                                                                                                                                                                                                                                                                                                                                                                                            NKGAWTKEEDQLLVDYIRKHGEGCWRSLPRAAGLQRCGKSCRLRWMNYLRPDLKRGNFTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEE-----DTKHKVAVDIMIKEENSPVQERCPDLNLDLKI---SPPCQQQINYHQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ--DINLELSIGIYSADSSRVSNANSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDPTTHRSINDGTASQDQVT-----SNANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IDPQTHRPLNQ-TANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNBFQFKSNTDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIRRKLLSRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   149;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1-246 <KRA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44.5%; Score 704.5;
52.4%; Pred. No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -SSTLCFVCRLGIQNSKDC-SCSDGVGN
                                                                                          YGNEEDWYLNLELSYGPSYRYESTRKYSYYDSAESTRRWGS
                                                                                                                                                                                         -SVVSPSSLQNDVVETIHLDFSGPVKPEPVREEIGMVNNC-E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 702; DB 2;
Pred. No. 1.7e-45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .1e-45;
                                   281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #text_change 02-Sep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               members
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              232;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Denekamp,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R2R3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                              245
                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                               72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                          210
                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -мув
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         :
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Greco,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
```

음. 청

S 밁 Š B 5 ₽ Š

```
myb-related protein M4E13.50 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 23-Apr-1999 #sequence_revision 23-Apr-1999 #text_change 13-Aug-1999
C;Accession: T05769
R;Bevan, M.; Purnello B Porter
                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-274 <BEV>
A; Cross-reference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: not compared with conceptual translation A;Molecule type: mRNA A;Residues; 1-255. cMAR>
A;Residues; 1-255. cMAR>
C;Superfamily: barley myb-related protein 1; myb D)
C;Keywords: DNA binding; duplication; nucleus; transf;9-61/Domain: myb DNA-binding repeat homology cMY;F;62-112/Domain: myb DNA-binding repeat homology cd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C:Accession: Suapyy
R:Marocco, A.; Wissenbach, M.; Becker,
R:Marocco, Genet. 216, 183-187, 1989
Mol. Gen. Genet. 216, 277 270 transcriber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            myb-related protein
C; Species: Zea mays
C; Date: 28-Feb-1990
  C;Superfamily; barley myb-related protein 1; C;Keywords: DNA binding; duplication; nucleus E;9-61/Domain: myb DNA-binding repeat homolog E;62-112/Domain: myb DNA-binding repeat homol
                                                                                                                                                                                                                       A; Reference number: 215451
A; Accession: T05769
A; Molecule type: DNA
                                                                                                                                                                                                                                                                               R; Bevan, M.; Purnelle, B.; submitted to the Protein Se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                 A; Map position: 4
A; Introns: 88/2
                                                                                                                                          A; Experimental source: cultivar Columbia; C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Reference number: S04896; MUID:89313655
A; Accession: S04899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Title: Multiple genes are transcribed in Hordeum vulgare and
                                                                                  A; Note: M4E13.50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Superfamily: barley myb-related protein 1; myb DNA-binding Reywords: DNA binding; duplication; nucleus; transcription; 9-61/Domain: myb DNA-binding repeat homology <MYB1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Species: Zea mays (maize)
Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 24-Jul-1997;
                                                                                                                                                                                  Cross-references: EMBL:AL022023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62-112/Domain: myb DNA-binding repeat homology <MYB2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161 KAPRC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 LRPDLKRGNFTADEDDLIVKLHSLLGNKWSLIAARLPGRTDNEIKNYWNTHVRRKLLGRG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PKVDNNNFQFLEQAMVAKAV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESK 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ELF---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDPVTHRPI--AADAVTVTT---VSFQPSPSAAAAAAA-----EAEATAA 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDPOTHRPLNOTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFOFKSNTDSL 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MGRSPCCEKAHTNRGAWTKEEDERLVAYIRAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -GAHESDAVCLCCRIGLFRNESCRNCRVSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zm38 - 1
(maize)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -AVVKREVLLGGRGHGHGHGGALCFGCSLGVQKGAPGCSCSSSNG
                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     maize
cation; nucleus; transcription
  repeat homology <MYB1>
ng repeat homology <MYB>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33,
                                                                                                                                                                                                                                                                                   Database,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 693; DB 1;
Pred. No. 8.6e-45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --- CLCWOLGFGTSEICRNCONSNSNG 284
                                                                                                                                                             BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PDLNLDLCI----SPPCQQQEEEEVDLK 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Paz-Ares,
                                                                                                                                                                                                                                                                               eau, A.; Hoheisel, J.;
April 1998
                                                            myb DNA-binding
                                                                                                                                                               clone M4E13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saedler,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat homology regulation
                                           regulation
                                                            repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zea mays that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  н.,
                                                                                                                                                                                                                                                                                                      Mewes, H.W.; Mayer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Salamini,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             carry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Roho
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                              δã
                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
```

Query Match

43.2%;

Score

684;

DВ

'n

Length

```
myb-related protein 1 - barley N; Alternate names: mybl protein C: Species: Hordeum vulgare (barley)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Suzuki, A.; Suzuki, Gene 198, 393-398, 19 A;Title: Cloning and A;Reference number: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       myb-related protein 1 - rice C; Species: Orvza satin-
                                                       C;Date: 20-Jul-1996 #sequence_revision 27-Feb-1997 #text_change 18-Jun-
C;Accession: S61506; S04896; S31817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Superfamily: barley myb-related protein 1; myb DNA-binding F;9-61/Domain: myb DNA-binding repeat homology <MYB1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 24-Mar-1999 #sequence_revision 24-Mar-1999 #text_change 21-Jul-2000 C;Accession: T02984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Gene: mybl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-239 <SUZ>
                     Plant
                                                                                                                                                       S61506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F;62-112/Domain: myb DNA-binding repeat homology <MYB>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:D88617; NID:g2605616; PIDN:BAA23337.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Status: preliminary; translated from GB/EMBL/DDB.
                                   R; Wissenbach, M.; Ueberlacker, B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: T02984
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Species: Oryza sativa (rice)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 49.9 Matches 146; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genetics:
                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      159
                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                         14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۲
                                                                                                                                                                                                                                                                                                                                                                                                        MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                      IDPQTHRPL
                                                                                                                                                                                                                                                                                                          LRPDLKRGNFTDDEDELIIRLHSLLGNKWSLIAGQLPGRTDNEIKNYWNTHIKRKLLARG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLFGRTDNEIKNYWNTHIKRKLBSRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                      MGRSPCCEKAHTNKGAWTKEEDQRLIAYIRAHGEGCWRSLPKAAGLLRCGKSCRLRWMNY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQN-----SNSNGFYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EEPNCTASSGMTTDEEQOEQLHKKQQYGPSNGQ--DINLELSIGIVSADSSRVSNANSAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MGRSPCCEKDHTNKGAWTKEEDDKLISYIKAHGEGCWRSLPRSAGLQRCGKSCRLRWINY
                                                                                                                                                                                                                                  IDPQTHRPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EK---IANFG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDPATHRPINETKTSQ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              {\tt LRPDLKRGNFTLEEDDLIIKLHSLLGNKWSLIATRLPGRTDNEIKNYWNTHVKRKLLRKG}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120;
                   411-422,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Suzuki, T.; Tanabe, F.; Toki, S.; Washida, H.; Wu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DERNIERFGR----VKYRCSACRFGFGNGKEC-SCNNVKCQTEDSSSSSYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d expression of five m 214811; MUID: 98036074
 Hordeum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 43.1%;
93.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -DERIQKRVEYSVVEERCLDLNLELRISPPWQDKLH------
 vulgare:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 4.4e-44;
0; Mismatches 61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 683; DB 2;
Pred. No. 4.4e-44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----KILSFGPQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          five myb-related
                                   Vogt,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               M1smatches
                                   .
.
.
tissue-specific
                                     Becker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          genes
                                     D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
 expression of
                                     Salamini,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PID:g2605617
                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C.Y.;
                                   ሻ
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                     Rohde,
                                                                                                                                                                                                                                                                                                                                                                                        60
 chimeric Myb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Takaiwa,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ŧ
```

```
A;Title: Sequence and analysis of chromosome A;Reference number: A84420; MUID:20083487 A;Accession: D84543
                                                                                                                                                                                                                                                                                                                                                                                   probable MYB family transcription factor At2g16720 [imported] - Arabidopsis thaliana N;Alternate names: myb-related protein Y49 C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 13-Jan-1996 *sequence_revision 19-Apr-1996 *text_change 02-Mar-2001 C;Accession: S5892; D84543 R;Quaedvlieg, N.E.M.; Dockx, J.; Keultjes, G.G.M.; Smeekens, J.C.M. submitted to the EMBL Data Library, July 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-269 <STO>
                                                                                                                                                 A;Cross-references: EMBL:X90385; NID:g928968; PIDN:CAA62033.1; PID:g928969; R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, F.; Benito, M.I.; Town, C.D.; Fujii, M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tall euss, D.; Nierman, W.C.; White, O.; Elsen, J.A.; Salzberg, S.L.; Fraser, C.M.; Ver Nature 402, 761-768, 1999
                                                                                                                                                                                                                                                                                                                                A; Reference number: S58280
A; Accession: S58292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Experimental source: var. Abessynian 2231
R;Marocco, A.; Wissenbach, M.; Becker, D.;
Mol. Gen. Genet. 216, 183–187, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:X70879; NID:g19052; PIDN:CAA50224.1; PID:g19053
A;Experimental source: var. Abessynian 2231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Superfamily: barley myb-related protein 1; myb DNA-binding; Reywords: DNA binding; duplication; nucleus; transcription; Seywords: DNA binding; duplication; nucleus; transcription; 9-61/Domain: myb DNA-binding repeat homology <MYB1>;62-112/Domain: myb DNA-binding repeat homology <MYB2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11. Gen. Genet. 216, 183-187, 1989
Filtle: Multiple genes are transcribed in Reference number: S04896; MUID:89313655
Accession: S04896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Status: preliminary
Molecule type: DNA
Residues: 1-267 <WIS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Introns: 88/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cross-references: EMBL:X70877; NID:g19050; Experimental source: var. Abessynian 2231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Molecule type: mRNA Residues: 1-267 <MAR>
                                                                                                                                                                                                                                                                                  Residues: 1-269 <QUA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Reference number: S61506;
Accession: S61506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              238 ESKPKVDNNNFQFLEQAMVAKAVCLCW--QLGFGTSEICR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DTKPVVKR-----EAGVGVGVVGLCFSCSMGLPRSSDCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAKAAAAAAISHHVDHHHRSNPQLDWGQGKPLKCPDLNLDLCI-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EEPNCTASSGMTTDEEQQEQLHKKQQYG---PSNGQDINLELSIGIVSADSSRVSNANSA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IDPOTHRPLNOTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IDPVTHRAINSDHAASNITISFESAQRDDKGAVFR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     43.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MUID:94035190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 683; DB 1; Length 267; Pred. No. 5.1e-44; B; Mismatches 72; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hordeum vulgare and Zea mays that carry the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Paz-Ares, J.; Saedler, H.; Salamini,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIDN:CAA50222.1;
                                                                                                                           of the plant Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPPIHEDPMV 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat homology regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PID: g1905:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>ن</u>
```

Search co

```
A;Gene: At2g16720
A;Map position: 2
A;Introns: 88/2
A;Introns: 88/2
C;Superfamily: barley myb-related protein 1; myb DNA-binding C;Keywords: DNA binding; duplication; nucleus; transcription C;Keywords: DNA binding; duplication repeat homology <MYB1>
F;62-112/Domain: myb DNA-binding repeat homology <MYB2>
                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                         Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Cross-references:
C; Genetics:
                                                                                                                         Ş
                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                          뭥
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 142; Conserv
                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                      121
                                                                                                                                                              163
                                                                                                                                                                                               181
                                                                                                                          238
completed: January
ne: 2915 sec
                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                            61 LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                                   1 MGRSPCCEKAHTUKGAWTKEEDORLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                             EEPNCTASSGMTTDEEQ----QEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSA
                                                                                                                                                                                                                                                                    IDPOTHRPLNGTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                                                                                                                                                                                                                                                                                                                                  MGRSPCCEKEHMNKGAWTKEEDERLVSYIKSHGEGCWRSLPRAAGLLRCGKSCRLRWINY
                                                                                                                          ESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGFYSY
                                                                                                                                                              QKQNKY I RNGLVCKEERVVVEEKI - - - -
                                                                                                                                                                                                                                     IDPATHRGINEA ----
                                                                                                                                                                                                                                                                                                           LRPDLKRGNFTHDEDELIIKLHSLLGNKWSLIAARLPGRTDNEIKNYWNTHIKRKLLSKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GB:AE002093; NID:g4581115; PIDN:AAD24605.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        48.8%;
                23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 681.5; DB 1
Pred. No. 6.7e-44;
15; Mismatches 59
                                                                                                                                                                                                                                      -KISDLKKTKDQIVKDVSFVTKFEE----TDKSGD
                    21:14:02
                                                                                                                                                            -- GPDLNLELRISPPWQNQREISTCTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GSPDB:GN00139
                                                                                                                                                                                                                                                                                                                                                                                                                                                           55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                    60
```

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                        299.5
296
296
294
291
                                                                                                                                                                                                                                          306.5
304.5
303
300
                                                                                                                                                                                                                                                                                                   439
402.5
322
312
309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                                                            288.5
288.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLOSUM62
Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         January 23, 2002, 21:12:53; Search time 51.05 Seconds (without alignments) 211.155 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SwissProt_39:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100059 seqs, 36664827 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-453-387A-2
1584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGRSPCCEKAHTNKGAWTKE....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length DB
                                                                                                                                                                        704
640
700
451
640
636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gapext 0.5
                                                                                                                                                                                                                                                                                                                                          MYB3_MAIZE
MYB1_HORVU
MYB2_PHYPA
MYBP_MAIZE
MYB1_MAIZE
MYB1_MAIZE
MYB0_MAIZE
MYBC_MAIZE
MYBC_MAIZE
MYBC_MAIZE
MYBC_MAIZE
                                                                                                                                                                                                                                         MYBB_CHICK
MYBB_XENLA
MYBB_XENLA
MYBB_MOUSE
MYB_CHICK
MYB_BOVIN
MYBB_HUMAN
MYB_HOMAN
MYB_HOMOUSE
MYB_MOUSE
MYB_XENLA
MYBA_HUMAN
MYBA_SCICK
MYB_DROME
MYBL_PHYPA
MYBA_PHYPA
MYBA_PHYPA
MYBA_PHYPA
MYBA_TEAST
CC5_SCHPO
REBL_YEAST
CRBL_KULIA
GCRZ_YEAST
WHI3_YEAST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ij
                                                                                                                                                                                                                                                                                                                                MYB_AVIMB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .... RNCQNSNSNGFYSYCRPLDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100059
                                                                                                                                                                                                                                                                                                             P20025 zea mays (m
P20026 hordeum vul
P80073 physconitre
P27898 zea mays (m
P20024 zea mays (m
P20027 hordeum vul
P10290 zea mays (m
P23592 zea mays (m
P27900 arabidopsis
P01104 avian myelo
003237 gallus gall
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
             4 physcomitre
5 saccharomyc
6 saccharomyc
7 schizosacch
8 saccharomyc
0 kluyveromyc
0 saccharomyc
                                                                                                                                                                                                                                          xenopus lae
xenopus lae
mus musculu
gallus gall
bos taurus
                                                                                                              homo sapien
gallus gall
drosophila
                                                                                                                                                                      mus musculu
                                                                                                                                                         xenopus lae
                                                                                                                                                                                                                 homo sapien
dictyosteli
```

Oy Db	Db Qy	Qy Db	Фр	X B O		2 R R R R R R R R R R R R R R R R R R R		BS		
یر ب	н н			Query Ma Best Loo Matches	Ince Pfant SMAR SMAR PROS PROS PROS PROS DNA_ DNA_ DNA_ SEQU	MEI MAI SA MAI S	O1. O1. Zea	JLT 3_MAI MYB P20		20000004444444444444444444444444444444
81 EEPNCTA :     61 KAPRC	121 IDPQTHRP          121 IDPVTHRP	61 LRPDLKF	1 MGRSPCC         1 MGRSPCC	atch cal (	irPro; 10; pro0; 17; SM00; 17; SM00; 17; Po; 17; Po; 17; Po; 18; Po; 1	SEQUENCE FRO SEQUENCE FRO MEDLINE-8931 MAROCCO A., Salamini F., Salamini F., "Multiple ge carry the DN Mol. Gen. Gen. Gen. Gen. Gen. Gen. Gen. Gen. Gen. FIR; S04899; P01103	01-FEB-1991 (Rel. 17, Last sec 01-FEB-1991 (Rel. 34, Last and 01-OCT-1996 (Rel. 34, Last and MYB-RELATED PROTEIN ZM38. Zea mays (Maize). Leakaryota; Viridiplantae; Stre Spermatophyta; Magnoliophyta; Panicoideae; Andropogoneae; Ze NCBL_TaxID-4577;	1 [ZE 33_MAIZE 0025;		102.5 102.5 99.5 98.5 96.9 96.5 97.5 98.5 98.5 98.5 98.5 98.5 98.5 98.5 98
SSGMT	PLNQTA	GNFTEE	EKAHTA	Similarity ); Conserv	(PRO0100 149; myb 1395; SA 130037; 1300334; 1500334; 150090; 150090; 150090; 161n; D	FROM N.A.  89313655; Pubme A, Wissenbach IF, Rohde W.; Le genes are tr ne DNA binding of the DNA binding of	(Rel. (Rel. (Rel. PROTEI 1ze). 1ridip a; Mag Andro	STA		иииооооооо шооооон комет
DEEQQEQ	TANTNTVTA  :     AADAVTVTT	SEDELIKI 	VKGAWTKEI  :      VRGAWTKEI	43.8 47.1 7ative	1005; Myb_DNA_b 1005; Myb_DNA_binding NANT: 2. 15 MYB_1; 1. 14; MYB_2; 1. 15; MYB_3; 2. 15; DNA-binding; 102 102 102 103 104 105 107 108 108 108 108 108 108 108 108	H 1 B 00 - 1	1/, Cres 1/, Last 34, Last N ZM38. N ZM38. lantae; pnoliophy	NDARD;		730 1 696 1 1113 1 410 1 923 1 923 1 1373 1 1373 1 1704 1 11142 1 1822 1
EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELS :	PTELDFRNSPTSVSKSSSI :  :   :: : ::: VSFQPSPSAAAAAAA-	LHSLLGNKWSLIAGRLP 	EDQRLINYIRVHGEGCW   :  :   :         EDERLVAYIRAHGEGCW	%; Score 693; DI %; Pred. No. 3.40 33; Mismatches	DNA_bind. Dinding; 2.  1. 1. 2. Repeat; Transcriding; Repeat; TranscrimyB. MYB. MYB. MYB.	34447; Becker D., Pa Becker D., Pa Becker D., Pa Jof the myb 7(1989) THE MYB FAMII	ptophyta; Liliopsida	PRT; 255 AA	ALIGNMENTS	GLN3_YEAST SKT5_YEAST PER3_MOUSE LMP2_CRIGR YEL4_YEAST DYIN_DICDI HRP1_SCHPO YG5B_YEAST VIT1_FUNHE POL_HV2BE YM6B_CAEEL MSN1_YEAST
IGIVSADSSRVSNANSAES	KNPSLDFNYNEFÇFKSNTDS :: EAEATA	LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 	MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGGWRSLPKAAGLLRCGKSCRLRWINY	DB 1; Length 255; 4e-46; ss 50; Indels 74;	scription regulation. 33E06 CRC64;	az-Ares J., Saedler H., sum vulgare and Zea mays oncoproteins.";	) yophyta; Tracheophyt ales; Poaceae; PACC		·	P18494 sacci P34226 sacci O70361 mus P49130 cric P40017 sacci P54703 dict Q9us25 schi P53316 gacci Q90509 funda P18096 huma P34529 caen P22148 sacci
- X 240 - 189	L 18	G 120	0 0 4 6 6	Gaps 7;		that	clade;			4 saccharomyc 6 saccharomyc 1 mus musculu 0 cricetulus 7 saccharomyc 3 dictybstel1 5 schizosacch 6 saccharomyc 8 fundulus he 6 human immun 9 caenorhabd1 8 saccharomyc

```
REAL TO SOLUTION OF THE PROPERTY OF THE PROPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-FEB-1991
01-OCT-1996
MYB-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HORVU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
             DNA_BIND
DNA_BIND
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Myb genes from Hordeum vulgare: tissue-specific expression of chimeric myb promoter/Gus genes in transgenic tobacco."; plant J. 4:411-422(1993).

-1- FUNCTION: POSSIBLE TRANSCRIPTION ACTIVATOR IN RESPONSE TO AN EXTERNAL SIGNAL. MAY BE INVOLVED IN THE REGULATION OF FLAVONOID EXTERNAL SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN-CV. ABYSSINIAN 2231; TISSUE-Leaf;
MEDLINE-94035190; PubMed-8220488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Marocco A., Wissenbach M., Becker Salamini F., Rohde W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-CV. ABYSSINIAN 2231;
MEDLINE-89313655; PubMed-2664447;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Spermatophyta; Magnoliophyta; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hordeum vulgare (Barley).
Eukaryota; Viridiplantae;
                                                                                                                                                                                                                                                                                                                                                          EMBL; X70877; CAA50222.1; -.
EMBL; X70879; CAA50224.1; -.
PIR; S04896; S04896.
PIR; S31817; S31817.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Multiple genes are transcribed in Hordeum vulgare and Zea mays that carry the DNA binding domain of the myb oncoproteins."; Mol. Gen. Genet. 216:183-187(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=4513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P20026;
                                                                                                                                                                                                                          Pfam; PF00249; myb_DNA-binding; 2. SMART; SM00395; SANT; 2.
                                                                                                                                                                                                                                                                               HSSP; P01103; 1POM.
Mendel; 8594; HORVU;Myb;mn8594
InterPro; IPR001005; Myb_DNA_b:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wissenbach M., Ueberlacker B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MYB1_HORVU
                                                                                                                                                PROSITE; PS00334; MYB_2; PROSITE; PS50090; MYB_3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rohde W.;
                                                                                              Repeat
                                                                                                                    Nuclear
                                                                                                                                                                                                    PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 PKVDNNNFQFLEQAMVAKAV---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION: NUCLEAR (PROBABLE). TISSUE SPECIFICITY: GERMINATING SEED AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BIOSYNTHESIS.
                                                                                                                    protein;
62
267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Rel. 17
(Rel. 17
(Rel. 34
) PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----AVVKREVLLGGRGHGHGHGGALCFGCSLGVQKGAPGCSCSSSNG
                AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                    DNA-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17, Last sequence up 34, Last annotation
             61
102
1 29740 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TVH.
                                                                                                                                                                                                                                                                               Myb_DNA_bind
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Streptophyta; Embryophyta; Tracheophyta;
yta; Lillopsida; Poales; Poaceae; Pooldeae;
                                         MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                       Activator; Transcription regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vogt F., Becker D.,
                   DBECEDCEBA847749 CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -CLCWQLGFGTSEICRNCQNSNSNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Paz-Ares
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APICAL MERISTEM OF SHOOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Salamini F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Saedler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      284
```

```
RESULT 3
MYB2_PHYPA
                     SPETER REPRESENTATION OF THE REPRESENTATION 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 142
                     DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE-94004988; PubMed-8401607;
Leech M.J., Kammerer W., Cove D.J.,
"Expression of myb-related genes in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Physcomitrella patens (Moss).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Bryophyta;
Bryopsida; Funariidae; Funariales; Funariaceae; Physcomitrella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1994
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MYB2_PHYPA
P80073;
                                                                                                                    PROSITE; PS00037; MYB_1; 1.
PROSITE; PS00334; MYB_2; 1.
PROSITE; PS50090; MYB_3; 2.
                                                                                                                                                                                                                                                                                                      EMBL; X67050; CAA474
PIR; S24244; S24244.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MYB-RELATED
                                                                                                                                                                                                  Pfam; PF00249; myb_DNA-binding; SMART; SM00395; SANT; 2.
                                                                                                                                                                                                                               InterPro; IPRO01005; Myb_DNA_bind. Pfam: PF00249; myb_DNA-binding; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-FEB-1994
                                                                        DNA_BIND
                                                                                                                                                                                                                                                                                HSSP; P01103;
                                                                                                      luclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   214 DTKPVVKR-----EAGVGVGVVGLCFSCSMGLPRSSDCK 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRÄLISRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGRSPCCEKAHTNKGAWTKEEDDRLTAYIKAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ESKPKYDNNNFQFLEQAMVAKAVCLCW--QLGFGTSEICR 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAKAAAAAAISHHVDHHHRSNPQLDWGQGKPLKCPDLNLDLCI--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EEPNCTASSGMTTDEEQQEQLHKKQQYG---PSNGQDINLELSIGIVSADSSRVSNANSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LRPDLKRGNFSHEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIRRKLTSRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDPVTHRAINSDHAASNITISFESAQRDDKGAVFR----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              142;
                                                                                                 protein; DNA-binding;
                        421 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Rel. 28, Created)
(Rel. 28, Last sequence update)
(Rel. 34, Last annotation updat
PROTEIN PP2
                                                                                                                                                                                                                                                                                                                                   CAA47435.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                          46695 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 683; DB 1;
Pred. No. 2.1e-45;
MYB.
; 27A3578578D0F3F4 CRC64
                                                                                                 Repeat; Transcription regulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Martin C., Wang T.L.;
the moss, Physcomitrella patens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                  (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                          Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPPIHEDPMV
                                                                                                                                                                                                                                                                                                                                                                                                                                             and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----RDAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              38;
                                                                                                                                                                                                                                                                                                                                                                                                                                               for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                               commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ហ
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MYBP_MAIZE STAN
P27898; P27899;
01-AUG-1992 (Rel 2
01-AUG-1992 (Rel 2
15-JUL-1999 (Rel 2
                                                                                                                                                                                  EMBL; M73028; AAA33500.1; -. EMBL; M73029; AAA33501.1; -. EMBL; Z11879; CAA77939.1; -. PIR; A39697; A39697. PIR; B39697; B39697. PIR; S26150; S26150.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MAIZE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC cla Panicoldeae; Andropogoneae; Zea.
NCBI_TaxID-4577;
                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             transposition of Ac.";
Genetics 131:199-209(1992).
-!- FUNCTION: TRANSCRIPTION
BIOSYNTHETIC PATHWAY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-91271238; PubMed-2052542;
Grotewold E., Athma P., Peterson T.;
"Alternatively spliced products of the maize P gene
with homology to the DNA-binding domain of myb-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MYB-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Insertional mutagenesis of the maize P gene by intragenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-92275319; PubMed-1317315;
                                                                                                           TRANSFAC;
                                                        MaizeDB; 6918:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SHORT FORM; ARE PRODUCED BY ALTERNATIV SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALTERNATIVE PRODUCTS: 2 ISOFORMS; A LONG FORM (SHOWN HERE) SHORT FORM; ARE PRODUCED BY ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LDPNTHLPLEDSKLDDTEDDTDDEGGDSSDVTMSDASKSEKRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LRPDLKRGIFSEAEENLILDLHATLGNRWSRIAAQLPGRTDNEIKNYWNTRLKKRLRSQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGRKPCCEKVGLRRGPWTSEEDQKLVSHITNNGLSCWRAIPKLAGLLRCGKSCRLRWTNY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Grotewold
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Acad. Sci. U.S.A. 88:4587-4591(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEIN P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                              .
POM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23, Created)23, Last sequence update)38, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E., Peterson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           55.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FACTOR POSTULATED TO REGULATE A FLAVONOID-DERIVED PIGMENT II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 7.5e-32;
7; Mismatches 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ⊢]
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       encode proteins transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IN CERTAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SPITITION OF THE STATE OF THE SPITITION 
     DARRITA DRANGE D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
DOMAIN
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VARSPLIC
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alternative splicing. DNA_BIND 9 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MYB-RELATED PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1991
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-1991 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P20024;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MYB1_MAIZE
                                                                                                                                                                                                                                                                                                                             Marocco A., Wissenbach
Salamini F., Rohde W.;
                                                                                                                                  MaizeDB; 69590; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       214 S 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          211 N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ASSPRHSDVVNPGPN---
                                                                                                                                                                 P06876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 153
399 A
                                                                                                                                                                 1MBJ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ÃĂ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
102
181
311
152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             399
```

```
MEDLINE-89313655; PubMed-2664447; MEDLINE-89313655, PubMed-2664447;
                                                                                                                                                                                                                                                                                                                Zea mays (Maize).

Zea mays (Maize).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC clade; Panicoideae; Andropogoneae; Zea.
InterPro; IPR001005; Myb_DNA_bii

Pfam; Pd4049; myb_DNA_binding;

SMARP; SM00395; SSANT; 2.

PROSITE; PS00037; MYB_1; 1.

PROSITE; PS000334; MYB_2; 1.
                                                                                                                                                               *Multiple genes are transcribed in Hordeum vulgare carry the DNA binding domain of the myb oncoproteir Mol. Gen. Genet. 216:183-187(1989)
                                                                                                                             IR; S04898; S04898.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLFGRTDNEIKNYWNTHIKRKLIS--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGRTPCCEKVGLKRGRWTAEEDQLLANYIAEHGEGSWRSLPKNAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SKS---SSIKNPSLDFNYNEFQFKSNTDSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RKYTAGPDDTAIAIDMSKLQSADRRRGGRTPGRPPKASASRTKQADADQPGGEAKGPAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LRADYKRGNISKEEEDIIIKLHATLGNRWSLIASHLPGRTDNEIKNYWNSHLSRQIHTYR
                                                         IPRO01005; Myb_DNA_bind.
                                                                                                                                                                                                                                                                                                                                                                                                                               (Rel. 17, Last sequence update) (Rel. 34, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17, 'Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43756 MW;
                                                                                                                                                    TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----RGIDPQTHRPLNQTANTNTVTAPTELDFRNSPTSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THE
                                                                                                                                                                                                                                          Becker D., Paz-Ares J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POLY-LEU

#$SLIASHLEGRTDNEIKNYWNSHLSRQIHTYRRKYTAGPDD
TAIAIDMSKLQSADRRRGGRTPG -> RHLMIEADYSPPST
VRCLERGALAXLTLERQSPFCTARITYDRIGSALLRSVRFC
FRCVPSRW (IN SHORT ISOFORM)

MISSING (IN SHORT ISOFORM)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 496.5; DB 1
Pred. No. 6.3e-31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Repeat; Transcription regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EE025B00A44CF5D0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                     the myb oncoproteins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          340
                                                                                                                                                                                                                                                                                                                                                                                                                                 update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                              Saedler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 57;
                                                                                                                                                                                                          mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                            that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.
```

```
QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-1994
01-OCT-1996
MYB-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LT 6
HORVU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE;
Nuclear p
                                                                                                                                                                                                                                                                                   STRAIN-CV. ABYSSINIAN 2231;
MEDLINE-89313655; PubMed-2664447;
Marocco A., Wissenbach M., Becker D., Paz-Ares J.,
Salamini F., Rohde W.;
                                                                                                                                                                                                                                                                                                                                                            "Myb genes from Hordeum vulgare: tissue-specific expression of chimeric Myb promoter/Gus genes in transgenic tobacco."; Plant J. 4:411-422(1993).
                                   EMBL;
                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                          STRAIN-CV. ABYSSINIAN 2231; TISSUE-Leaf; MEDLINE-94035190; PubMed-8220488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Spermatophyta; Magnoliophyta; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hordeum vulgare (Barley).
Eukaryota; Viridiplantae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA_BIND
                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 35-302 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                 Rohde W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=4513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P20027;
                                                                                                                                                                                                                                                                                                                                                                                                           Wissenbach M., Ueberlacker B.,
                                                                                                                                                                                                                                                                           "Multiple genes are transcribed in Hordeum vulgare and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MYB3_HORVU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                    SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                         SUBCELLULAR LOCATION: NUCLEAR TISSUE SPECIFICITY: GERMINATIN
S04897;
S35419;
S31818;
                                                                                                                                                                                 AND
                                                                                                                                                                                                                 BIOSYNTHESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISR 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINYL 61
                                   X70881; CAA50226.1; -. X70878; CAA50223.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RPDLKRGNFTDEEEEAIIRLHGLLGNKWSKIAACLPGRTDNEIKNVWNTHLKKKVAQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    86; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; PS50090; MYB_3; 2.
protein; DNA-binding; Repeat; Transcription regulation
D 11 63 MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               340 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Rel.
(Rel.
           S04897.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;

    Last sequence update)
    Last annotation update

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36239 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                           GERMINATING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Streptophyta; Embryophyta; Tracheophyta;
yta; Lillopsida; Poales; Poaceae; Pooidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 490; DB 1;
Pred. No. 1.6e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                          Vogt F., Becker D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F2341387F6263DAF CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                         (PROBABLE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         update)
                                                                                                                                                                                           AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          $
                                                                                                                                                                                         APICAL MERISTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                   Saedler H.,
                                                                                                                                                                                                                                                                                                                                                                                                             Salamini
                                                                                                                                                                                                                                                                            Zea
                                                                                                                                                                                                                                                                           mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                           OF,
                                                                                                                                                                                                                                                                            that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

```
MYBC_MAIZE
ID MYBC_MAIZE
AC P10290;
DT 01-MAR-1989
DT 01-MAR-1989
DT 01-OCT-1996
RRAR POCCOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DR DR DR DR FT FT SQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Repeat.
DNA_BIND
DNA_BIND
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                       Spermatophyta; waridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC clade; Panicoldeae; Andropogoneae; Zea.

NCBI_TaxID-4577;
         EMBL; M37153; AAA334
PIR; S06215; TVZMMB.
HSSP; P06876; IMBJ.
                                                                                      use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entitles requires a license agreement (See http://www.isb-sib.
                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                           to myb proto-oncogene products and with structural similarities to transcriptional activators.";
EMBO J. 6:353-3538(1987).
-I- FUNCTION: CONTROLS THE EXPRESSION OF GENES INVOLVED IN ANTHOCYANIN BIOSYNTHESIS. REGULATES THE EXPRESSION OF AT LEAST 3 STRUCTURAL GENES: CHALCONE SYNTHASE, DIHYDROFLAVONOL REDUCTASE AND FLAVONOL O(3) GLUCOSYLTRANSFERASE. C1 ACTS AS A TRANS-ACTING FACTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00249; myb_DNA-bInding; SMART; SM00395; SANT; 2. PROSITE; PS00037; MYB_1; 1. PROSITE; PS00334; MYB_2; 1. PROSITE; PS50090; MYB_3; 2.
                                                                         or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                     Paz-Ares J., Ghosal D., Wienand U., Peterson P.A., Saedler H.; "The regulatory c1 locus of Zea mays encodes a protein with home to myb proto-oncogene products and with structural similarities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSSP; P04002; lATF.
Mendel; 8595; HORVU
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE-88111545; PubMed-3428265;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ANTHOCYANIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nuclear protein; DNA-binding; Activator; Transcription regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QGIDPATHKPM---ASADTATAAAAL 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGR--SPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RGIDPOTHRPLNOTANTNTVTAPTEL 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NYLRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NYLRPDLKRGCFSQQEEDHIVALHQILGNRWSQIASHLPGRTDNEIKNFWNSCIKKKLRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGRPSSGAVGQPKVRKGLWSPEEDEKLYNHIIRHGVGCWSSVPRLAALNRCGKSCRLRWI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 57.5
84; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IPR001005;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 302 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Rel. 10, Created)
(Rel. 10, Last sequence update)
(Rel. 34, Last annotation update)
REGULATORY C1 PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; late.
,; Horvu; Myb; mn8595.
,on1005; Myb_DNA_bind.
,inding; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64
4
                                           AAA33482.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104
259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104 MYB.
259 A -> P (IN REF. 2).
33003 MW; 89017418C3631599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 454.5;
Pred. No. 7.2e
23; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .2e-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                       homology
                                                                                                   commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
```

(3)

```
RESULT - RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DR KW DR FT FT KW KW SQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1991
01-NOV-1991
                                                                                                                                                                                                                                                                                                                                                                             Paz-Ares J., Ghosal D., Saedler H.;

Molecular analysis of the C1-I aliele from Zea mays: a dominant
mutant of the regulatory C1 locus.";

EMBO J. 9:315-221(1990).

-I- FUNCTION: CONTROLS THE EXPRESSION OF GENES INVOLVED IN ANTHOCYANIN
BIOSYNTHESIS. REGULATES THE EXPRESSION OF AT LEAST 3 STRUCTURAL
GENES: CHALCOME SYNTHASE, DIHYDROFLAVONOL REDUCTASE AND FLAVONOL
O(3) GLUCOSYLTRANSFERASE. C1 ACTS AS A TRANS-ACTING FACTOR.

O(3) GLUCOSYLTRANSFERASE. C1 ACTS AS A TRANS-ACTING FACTOR.

MISCELLANEOUS: THE C1-I ALLELE IS A DOMINANT NEGATIVE MUTANT WHICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MAIZE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00037; MYB_1; 1.
PROSITE; PS00334; MYB_2; 1.
PROSITE; PS50090; MYB_3; 2.
Nuclear protein; DNA-binding; Repeat; Transcription regulation;
                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE-90151603; PubMed-2303027;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Spermatophyta; Magnollophyta; L1 Panicoldeae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zea mays (marze).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC cl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MYBD_MAIZE P23592;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00249; myb_DNA-
SMART; SM00395; SANT; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zea mays (Maize)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Activator; Trans-acting factor
                            EMBL; x52201; CAA36456.1; PIR; S12369; S12369.
                                                                                                                                                                                                                                                                                                                             INHIBITS PIGMENT FORMATION.
-I- SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID-4577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTHOCYANIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR001005; Myb_DNA_bind.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MaizeDB; 24964;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 LRPNIRRGNISYDEEDLIIRLHRLLGNRWSLIAGRLPGRTDNEIKNYWNSTLGRRAGAGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGSWVVVAPDTGSHATPAATSGACETGQNSAAHRADPDSAGTTTTSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MGRRACCAKEGVKRGAWTSKEDDALAAYVKAHGEGKWREVPQKAGLRRCGKSCRLRWLNY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      205
234
273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Rel.
(Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Rel. 20, Last sequence up (Rel. 34, Last annotation REGULATORY C1-I PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20,
34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 M
102 M
212 P
273 A
28750 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------LISRGIDPQTHRPLNQTANTNTVTA 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA-binding; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 443.5; DB 1;
Pred. No. 4.4e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ASP/GLU-RICH (ACIDIC).
; 163977BBA8CE669D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POLY-GLY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    252 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Poaceae; PACC clade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
```

```
RESULT 9
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SQ FTT KWW DRRR DRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 63.5
        EMBL; M79448; AAC97387.1; -.

PIR; A39289; TVMUG1.

HSSP, PO1103; 1POM.

TRANSFAC; T01588; -.

TRANSFAC; T01588; -.

TRANSFAC; T01580; Myb_DNA_bind.

InterPro; IPRO01005; Myb_DNA_bind.

Pfam; PF00249; Myb_DNA_binding; 2.

SMART; SM00395; SANT; 2.

PROSITE; PS00037; MYB_1; 1.

PROSITE; PS00334; MYB_2; 1.

PROSITE; PS00334; MYB_3; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arabidopsis thallana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embry
Spermatophyta; Magnoliophyta; eudicotyledons;
eurosids II; Brassicales; Brassicaceae; Arabi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GL1_ARATH STANDARD: PRT; 228 AA. P27900; P27900; O1-AUG-1992 (Rel. 23, Created) O1-AUG-1992 (Rel. 23, Last sequence update) O1-OCT-1996 (Rel. 34, Last annotation update)
                                                                                                                                                                                entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                             modified and this statement is not removed entitles requires a license agreement (See
                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                Oppenheimer D.G., Herman P.L., Sivakumaran S., Esch J., "A myb gene required for leaf trichome differentiation is expressed in stipules.";
Cell 67:483-493(1991)..."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00037; MYB_1; 1.
PROSITE; PS000334; MYB_2; 1.
PROSITE; PS50090; MYB_3; 2.
Nuclear protein; DNA-binding; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00249; myb_DNA:
SMART; SM00395; SANT;
                                                                                                                                                                                                                               use
                                                                                                                                                                                                                                            the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-92034971; PubMed-1934056;
                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRICHOME DIFFERENTIATION PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                        DIFFERENTIATE.
-!- SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MaizeDB; 24964;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Activator; Trans-acting factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 LRPNIRRGNISYDEEDLIIRLHRLLGNRWSLIAGRLPGRTENEIKNYWNSTLGRR 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                         1 67:483-493(1991).
FÜNCTION: REGULATES THE PRODUCTION OF A SIGNAL THAT INDUCES FUNCTION: REGULATES THE PRODUCTION OF A SIGNAL THAT INDUCES FUNCTION PRECURSOR CELLS ON LEAF PRIMORDIA TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGRRACCAKEGYKRGAWTSKEDDALAAYYKAHGEGKWREYPQKAGLRRCGKSCRLRWLNY
                                                                                                                                                                                                                               non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IPR001005; Myb_DNA_bind.
)249; myb_DNA-binding; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Brassicales; Brassicaceae; Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                102 MYB.
212 POLY-GLY.
26419 MW; AD61FA2B829C5FBD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27.7%;
63.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 439; DB 1;
Pred. No. 8.8e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GL1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Transcription regulation,
                                                                                                                                                                                               (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                          There are no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Embryophyta; Tracheophyta;
                                                                                                                                                                                                                               as its content
                                                                                                                                                                                                               Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            core eudicots;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                            restrictions
                                                                                                                                                                                                                                                                                                                                                                                                  ., Marks M.D.
۱ in Arabidor
                                                                                                                                                                                                                 and
                                                                                                                                                                                                       is
for
                                                                                                                                                                                                                                                                                                                                                                                                   Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rosidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                 commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                               ဝ္
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
```

DNA-binding; Repeat; Transcription regulation.

```
RESULT
MYB_AVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MYB_AVIMB

NYB_AVIMB

P01104; Q83871; Q90954;

21-JUL-1986 (Rel. 01, Created)

01-MAR-1989 (Rel. 10, Last sequence up

20-AUG-2001 (Rel. 40, Last annotation

PDANSFORMING PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AVIMB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA_BIND
DNA_BIND
SEQUENCE
                                                   Oncogene 9:2761-2774(1994).

Oncogene 9:2761-2774(1994).

-I- FUNCTION: MYB IS A DNA-BINDING PROTEIN THAT SPECIFICALLY RECOGN THE SEQUENCE YAAC(G/T)G.

THE SEQUENCE YAAC(G/T)G.

-I- DOMAIN: THE ABSENCE OF THE MYB N- AND/OR C-TERMINAL OF THIS PROTEIN MAY PREVENT HOMODINER FORMATION, LEADING TO DNA-BINDING AND ITS INCREASED TRANSACTIVATION ACTIVITY.

-I- DISSASE: THE V-MYB ONCOGENE TRANSFORMS IMMATURE MYELOMONOCYTIC AVIAN CELLS IN CULTURE AND INDUCES MYELOBLASTOSIS (MYELOID
                                                                                                                                                                                                                                                                                                                                                                 Klempnauer K.-H., Gonda T.J., Bishop J.M.;
"Nucleotide sequence of the retroviral leukemia
cellular progenitor c-myb: the architecture of a
                                                                                                                                                                                                                                                                             Rushlow K.E., Lautenberger J.A., Papas Chirikjian J.G., Reddy E.P.;
                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE-83129359; PubMed-6297766;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Avian myeloblastosis virus.
Viruses; Retroid viruses; Retroviridae;
           This
                                                                                                                                                                                                                                                                                                         MEDLINE-8
                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                           Cell 31:453-463(1982).
                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=11866;
                                                                                                                                                                                                   MEDLINE-94366722; PubMed-8084581;
                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                         Science 216:1421-1423(1982)
                                                                                                                                                                                        Baluda M.A., Reddy
                                                                                                                                                                                                                                                                 "Nucleotide sequence of the transforming
                                                                                                                                                                          Anatomy of an integrated avian myeloblastosis provirus: structure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           144 AT-PSSRHHQQENIYE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        œ
                                                                                                                                                              function."
                                    SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                  LEUKEMIA) IN CHICKENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSI-GIVSADSSRVSNANSAESKPK 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EKAHTIKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINYLRPDLKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSLEEPNCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENQEYKKGLWTVEEDNILMDYVLNHGTGQWNRIVRKTGLKRCGKSCRLRWMNYLSPNVNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                   2223743; PubMed-6283631;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
64
228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A
                                                                                                                                                                                        E. P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63
104
26435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 402.5; DB 1
Pred. No. 4.8e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---NIAKSFNGVVSA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8236EA36FAA6EB6C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -SSAVKTTGED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           update)
on update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              382
                                                                                                                                                                                                                                                                                          T.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Avian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₹
                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                     of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 46;
                                                                                                                                                                                                                                                                                          Baluda M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        `+.
                                                                                                                                                                                                                                                                    of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          type C
                                                                                                                                                                                                                                                                                                                                                                                gene v-myb and
                                                                                                                                        SPECIFICALLY RECOGNIZE
                                                                                                                                                                                                                                                                    avian
                                                                                                                                                                                                                                                                                                                                                                     transduced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --SYEDKPK 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --DDSPPSLFITA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           retroviruses.
                                                                                                                                                                                                                                                                  myeloblastosis
                                                                                                 OF THIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            228;
                                                                                                                                                                                                                                                                                             Perbal B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7;
```

```
RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SO PETER TO WAR PE
                    RRY OCCOORDINATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         덩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 84
                                                                                                                                                                                                                                    01-OCT-1993
01-OCT-1993
15-JUL-1998
MYB-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; J02012; AAA42553.1;
EMBL; S74099; AAB31930.2;
EMBL; J02013; AAC15907.1;
PIR; A01347; QOYY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for conentities requires a license agreement (See http://www.lsb-sib.ch/anor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE;
PROSITE;
PROSITE;
[1]
SEQUENCE FROM N.A.
MEDLINE-93049214; PubMed-1425593;
Arimm S., Klempnauer K.-H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00249; myb_DNA-binding; SMART; SM00395; SANT; 2.
                                                                                                                                             Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Archosauria; Aves; Neognathae; Galliformes; Phasiani
                                                                                                                                                                                                                                                                                                                       MYBB_CHICK Q03237;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR001005; Myb_DNA_bind Pfam; PF00249; myb_DNA-binding; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSSP;
                                                                                                                                                                                                              MYBL2 OR BMYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSFAC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA_BIND
                                                                                                    NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ransforming protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NKGAWTKEEDQRLINYIRVHGEGCWRSLPK-AAGLLRCGKSCRLRWINYLRPDLKRGNFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TANTITYTAPTELDFRISPTSVSKSSSIKNP-SLDFNYNEFQFKSNTD--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EEEDELTIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGIDPQTHRPLNQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NKGPWTKEEDQRVIEHVQKYGPKRWSDIAKHLKG--RIGKQCRERWHNHLNPEVKKTSWT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       STTVADNTRTSGDNAPVSCLGEHHHCTPSPPVDHG---CLPEESASPARCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GIVSADSSRVSNANSAES----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IINVPQPAAAAIQRHYTDEDPEKEKRIKELELLLMSTENELKGQQALPTQNHTANYPGWH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  --SLEEPNCTASSGMTTDEEQQEQLH--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SATTGFQKSSHLMAFAHNPPAGPLPGAGQAPLGSDYPYYHIAEPQNVPGQIPYPVALHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EEEDRIIYQAHKRLGNRWAEIAKLLPGRTDNAVKNHWNSTMRRKVEQEGYPQESSKAGPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P06876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; PS00037; MYB_1;
; PS00334; MYB_2;
; PS50090; MYB_3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity 28.9
84; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                382
                                                                                                                                                                                                                                                        (Rel. 27,
(Rel. 27,
(Rel. 36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        204
                                                                                                                                                                                                                                      PROTEIN B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA42553.1; ALT_INIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IMBJ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15
67
118
256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oncogene;
                                                                                                                                                                                                                                    (B-MYB).
                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   มหม
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALT_INIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 322; DB 1;
Pred. No. 1.3e-17;
9; Mismatches 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LEUCINE-ZIPPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NEGATIVE REGULATORY DOMAIN SIMILARITY) (INCOMPLETE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRANSCRIPTIONAL ACTIVATION DOMAIN (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MYB
                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1459BACAD29EC971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -KPKVDNNNFQFLEQAMVAKAVCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (PARTIAL).
                                                                                                                                                                                                                                                                               update)
                                                                                                                                                                                                                                                                                                                                                686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein; DNA-binding; Repeat.
                                                                                                                                                                                                                                                                                                                                                Å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -KKQQYGPSNGQDINLELSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 382;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                     Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                             305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   262
                                                                                                                                                      Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 0
0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7;
```

```
RESULT
MYBA_XE
ID MY
AC QO
DT 01
DT 01
DT 01
DT 01
OE MY
GN MY
SN Xe
                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                           밁
                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                     밁
                                                                                                                                            뭐
                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 64
                                MYBA_XENLA STANDARD;

Q05935;

Q1-OCT-1996 (Rel. 34, Created)

Q1-OCT-1996 (Rel. 34, Last seq

Q1-OCT-1996 (Rel. 34, Last ann
                                                                                           XENLA
                                                                                                                                                                                                                                                                                                                                              DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produbetween the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for conformational instability of the protein control of gene expression.";
Biochemistry 37,9619-9629(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    McIntosh P.B., Frenkiel T.A., Wollborn U., McKlempnauer K.H., Feeney J., Carr M.D.;
"Solution structure of the B-Myb DNA-binding"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Functional antagonism between members of inhibits v-myb-induced gene activation."; EMBO J. 11:4619-4629(1992).
         MYB-RELATED PROTEIN A MYBL1 OR AMYB OR MYB2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X67505; CAA47839.1;
                                                                                                                                                                                                                                                                                                                                                                      DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                         Transcription regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMART;
                                                                                                                                                                                                                                                                                                                                                                                    DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRUCTURE BY NMR OF 79-186
                                                                                                                                            194
                                                                                                                                                                 133
                                                                                                                                                                                           141
                                                                                                                                                                                                                73
                                                                                                                                                                                                                                       83
                                                                                                                                                                                                                                                              14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HEMATOPOIETIC CELLS.
SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FOR BINDING SITES. IT IS AN INHIBITORY MEMBER OF TH SUBCELLULAR LOCATION: NUCLEAR.
TISSUE SPECIFICITY: EXPRESSED IN HEMATOPOIETIC AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: IT REPRESSES V-MYB- AND C-MYB-MEDIATED THE MIM-1 GENE, PROBABLY BY COMPETING WITH OTHER FOR BINDING SITES. IT IS AN INHIBITORY MEMBER OF
                                                                                                                                                                 ANTINTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTD
                                                                                                                                                                                                                                                            KGAWTKEEDQRLINYIRVHGEGCWRSLPK-AAGLLRCGKSCRLRWINYLRPDLKRGNFTE 72
                                                                                                                                                                                                        EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGIDPQTHRPLNQT 132
                                                                                                                                                                                                                                       KGPWTKEEDQKVIELVKKYGTRQWTLIAKHLKG--RLGKQCRERWHNHLNPEVKKSSWTE 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S28050;
                                                                                                                                                                                           EEDRIIFEAHKYLGNRWAEIAKLLPGRTDNAVKNHWNSTIKRKYDTGGF---
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PF00249; myb_DNA-binding;
; SM00395; SANT; 3.
                                                                                                                                          KESOPLYLLVEVDDNESOSGTRAESOTIVPNWPVDISEIKEEDVSD
                                                                                                                                                                                                                                                                                       64;
laevis (African clawed frog).
                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                    PS00037; MYB_1; 3. PS000334; MYB_2; 3. PS50090; MYB_3; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T01586; -.
IPR001005; Myb_DNA_bind.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUL-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22063; PubMed-9657674;
                                                                                                                                                                                                                                                                                       Conservative
                      PROTEIN A (A-MYB) (XAMYB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S28050
                                                                                                                                                                                                                                                                                                                                                                      25
78
                                                                                                                                                                                                                                                                                                                                                ₽,
                                                                                                                                                                                                                                                                                                                                                                      77
129
                                                                                                                                                                                                                                                                                                                                             180 P
77736 MW;
                                                                                                                                                                                                                                                                                               19.7%;
                                  Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                         Nuclear protein; DNA-binding; Repeat;
                                                                                                                                                                                                                                                                                       3
3
7
                                                                                                                                                                                                                                                                                                Score 312; DB 1;
Pred. No. 1.6e-16;
                                                                                                                                                                                                                                                                                                                                                                     мув.
                                                                                                                                                                                                                                                                                                                                                         MYB.
                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                2D1209EAD6489D7B CRC64;
                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        It is produced through
                                                                                 728
                       (MYB-RELATED PROTEIN 2) (XMYB2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    There are no
                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the myb family: B-myb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McCormick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      domain:
                                                                                                                                                                                                                                                                                     59; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'n
                                                                                                                                                                                                                                                                                                            Length 686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D ACTIVATION OF R MYB PROTEINS F THE MYB FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a possible role binding and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
[7]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS
MYB FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a collaboration
                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                          -L'NET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               outstation
                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                           193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                     Ψ
                                                         QΥ
                                                                                 밁
                                                                                                      δã
                                                                                                                                                                                                                                       δÃ
                                  В
                                                                                                                              망
                                                                                                                                                   ρy
                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; X72620;
EMBL; M75871;
HSSP; P06876;
                                                                                                                                                                                                                                                                                                            Repeat.
DNA_BIND
DNA_BIND
                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00249; myb_DNA-binding; SMART; SM00395; SANT; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entities
                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entities requires a license agreement (
or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oncogene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sleeman J.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xenopodinae;
                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
                                                                                                                                                                                                                                                                                                   DNA_BIND
                                                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR001005; Myb_DNA_bind.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Xenopus
             185
                                   204
                                                           130
                                                                                 144
                                                                                                                                                                                                                                                                                                                                                ranscription
                                                                                                        73
                                                                                                                               86
                                                                                                                                                      14
                                                                                                                                              KGAWTKEEDQRLINYIRVHGEGCWRSLPK-AAGLLRCGKSCRLRWINYLRPDLKRGNFTE
            CTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESKPKVD
                                  KLQA--KSCAAPNHLQAQNQFYIPVQTQIPRYSSLSHDD-----NCIEIQNSFSFIQQPF
                                                                                               EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGIDP----QTHRPL
                                                                                                                               KGPWTKEEDQRVIELVHKYGPKKWSIIAKHLKG--RIGKQCRERWHNHLNPDVKKSSWTE
                                                          NQTANTNTVTAPTELDFRNS-----PTSVSKSSSIKNPSLDFNYNEFQFKSNTDSLEEPN
                                                                                 EEDRIIYSAHKRMGNRWAEIAKLLPGRTDNSIKNHWNSTMKRKVEQEGYLQDLMNCDRPS
                                                                                                                                                                              83;
                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                         PS00037; MYB_1;
PS00334; MYB_2;
PS50090; MYB_3;
                                                                                                                                                                                                                                       728
                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                               296
                                                                                                                                                                                                                                                                                     29
81
133
230
                                                                                                                                                                                                                                                                                                                                                                                                                                             CAA51196.1; -. AAA49904.1; -.
                                                                                                                                                                                                                                       Ā,
```

MYB.
TRANSCRIPTIONAL ACTIVATION
(BY SIMILARITY).
NEGATIVE REGULATORY DOMAIN

(BY DOMAIN

83576

MW;

7A360CBA51AC0797 CRC64;

19.5%;

Score 309; DB 1; Pred. No. 2.9e-16;

Length Indels

45;

Mismatches

96;

62;

Gaps

10;

129 143 72

203

256 184 132 132 183 293

ωN

Activator;

Nuclear protein; DNA-binding

(See http://www.isb-sib.ch/announce/

```
van Wijk I., Moelling K., Pieler T., "Molecular cloning, expression and in vitro characterization of Myb-related proteins in Mech. Dev. 37:57-68(1992).
the European Bioinformatics Institute. Thuse by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 1-181 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE-93288408;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-92297434; PubMed-1606020;
                                                                                                                                                 SUBCELLULAR LOCATION: NUCLEAR.
DEVELOPMENTAL STAGE: EXPRESSED DURING
SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                         FUNCTION: STRONG TRANSCRIPTIONAL ACTIVATOR; DNA-BINDING PROTEIN THAT SPECIFICALLY RECOGNIZE THE SEQUENCE 5'-YAAC (G/T)G-3'. COULL HAVE A ROLE IN THE PROLIFERATION AND/OR DIFFERENTIATION OF NEURORGENIC, SPERMATOGENIC AND B-LYMPHOID CELLS (BY SIMILARITY).
                                                                          SWISS-PROT entry is copyright. It is produced through a collaboration -
een the Swiss Institute of Bioinformatics and the EMBL outsitation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A-myb is expressed during 8:1931-1941(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xenopus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PubMed-8510936;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      early
                                                                                                                                                                                                                                                                                                                                                                                                                           T., Kalkbrenner
                                                     There are no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 spermatogenesis.";
                            as its content
                                                                                                                                                                           EARLY SPERMATOGENESIS:
                                                                                                                                                                                                                                                                                                                                                    tunctional
Xenopus.";
     Usage
     bУ
                                                   restricti
       and
  for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                 5
                                                                                                                                                                                                                                                                               COULD
       commercia
                                 50
                                                     9
```

8 Ş 밁

```
MYBB_XENLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
                                                                                                                                           Matches
                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MYBB_XENLA
.P52551;
01-OCT-1996
                                                                                                                                                                                                                                                        DNA_BIND
DNA_BIND
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00037; MYB_1; PROSITE; PS00037; MYB_1; PR0SITE; PS50090; MYB_3; PROSITE; PS50090; MYB_3; PROSITE; PS50090; MYB_3; PS50090; PS50090; MYB_3; PS50090; MYB_3; PS50090; PS50090; MYB_3; PS50090; PS50090; PS50090; PS50090; MYB_3; PS50090; PS5009
                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001005; Myb_DNA_bind.
Pfam; PF00249; myb_DNA-binding; 3.
SMART; SM00395; SANT; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a centre of the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-OCT-1996 (Rel. 34, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
MYB-RELATED PROTEIN (B-MYB) (MYB-RELATED PROTEIN 1) (XMYB1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; M75870; AAC98701.1; --
HSSP; Q03237; 1A5J
InterPro; IPR001005; Myb_DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bouwmeester T., Guehmann S., El-Baradi T., K van Wijk I., Moelling K., Pieler T.; "Molecular cloning, expression and in vitro characterization of Myb-related proteins in Mech. Dev. 37:57-68(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-92297434; PubMed-1606020; MEDLINE-92297434; PubMed-1606020; Rouwmeester T., Guehmann S., El-Baradi T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 xenopus occyres.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Humbert-Lan G., Pieler T., regulation of DNA-binding activity and nuclear transport
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REVISIONS TO C-TERMINUS.
Humbert-Lan G., Pieler T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Xenopus laevis (African clawed frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MYBL2 OR BMYB OR MYB1
                                                                                                                                                                                                                                                                                                                              DNA_BIND
                                                                                                                                                                                                                                                                                                                                                         Transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         - I - SIMILARITY: BELONGS TO THE MYB FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     245 NNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQN---SNSNGFYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257
  73
                                               83
                                                                                         14
                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NITTEG (UECTION; NUCLEAR.
SUBCELLULAR LOCATION; NUCLEAR.
DEVELOPMENTAL STAGE: PRESENT THROUGHOUT OOGENESIS AND EARLY
DEVELOPMENTAL STAGE; IN ADULT TISSUE IT IS PRIMARILY DETER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VDA--
EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGI-
                                            KGPWTKEEDEKVIELVKKYGTKHWTLIAKQLRG--RMGKQCRERWHNHLNPEVKKSSWTE 140
                                                                                       KGAWTKEEDQRLINYIRVHGEGCWRSLPK-AAGLLRCGKSCRLRWINYLRPDLKRGNFTE 72
                                                                                                                                             80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (DEC-1998) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -VRRKRVPSGSSLTWSESYHMGESMSNTMSHLEEQTHDFYS 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ---DDPEKEKRIK--
                                                                                                                                                                                                                                                           130
743 ?
                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Xenopus
                                                                                                                                                                                                                                                                                                                                                       regulation; Nuclear protein; DNA-binding; Repeat.
                                                                                                                                                                                                                                                             AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                MYB_3; 3.
                                                                                                                                                                                                                                                        129 M
180 M
82909 MW;
                                                                                                                                                               19.3%;
                                                                                                                                           37;
                                                                                                                                        Score 306.5; DB 1;
Pred. No. 4.6e-16;
7; Mismatches 56;
                                                                                                                                                                                                                                                                                    HYM
                                                                                                                                                                                                                                                                                                                                MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                           5FD1D678BB24409B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----ELELLLMSAENE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (See http://www.isb-sib.ch/announce,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in Xenopus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kalkbrenner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IS PRIMARILY DETECTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           databases.
                                                                                                                                                                                   Length
                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of B-Myb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a collaboration
                                                                                                                                        87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                outstation
                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             n no way
  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                           9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
MYBB_MOUSE
ID MYBB_M
AC P48972
DT 01-FEB
DT 01-FEB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
  멍
                                                                                                                                                                                                           EMBL; X70472; CAA49898.1; -.
EMBL; X73028; CAA51511.1; -.
HSSB; 03337; 1A5J.
MGD; MGI:101785; Myb12.
InterPro; IPR001005; Myb_DNA_bind.
Pfam; PF00249; myb_DNA-binding; 3.
SMART; SM00395; SANT; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MYBB_MOUSE
P48972;
01-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 1-6 FROM N.A. MEDLINE-93327760; PubMed-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mouse B-myb transcription.
EMBO J. 12:2705-2713(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oncogene 7:1885-1890(1992).
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Characterization B-myb.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE-92366176; PubMed-1501895;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-FEB-1996
20-AUG-2001
                                                                                                                                                               PROSITE; PS00037; PROSITE; PS00334;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PHOSPHORYLATION AT THR-524 IS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "An E2F-binding site mediates cell-cycle regulated repression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MYBL2 OR BMYB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MYB-RELATED
                                                                                         Phosphorylation
                                                                                                                  Transcription
                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lam E.W., Watson R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jam E.W., Robinson C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTIVITY (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EEDRIICQAHKVLGNRWAEIAKLLPGRTDNAVKNHWNSTIKRKVETGGFLTVKASGQQEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SRVSNANSAESKPKVDNNNF 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEFQFKSNTDSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGWSADS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REDSGYQAAEDQNHVLLSEPVERSAN---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----DPQTH----RPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNY
                                                                                                                                                               PS00037; MYB_1;
PS00334; MYB_2;
                                                                                                                                        PS00037; MYB_1; 3. PS00334; MYB_2; 3. PS50090; MYB_3; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -DSAPEKWMVEYVNF 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Rel. 33,
(Rel. 33,
(Rel. 40,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ------LTKSPGIRSEQE--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROTEIN B (B-MYB).
                                                                                                                  regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and cell cycle-regulated expression of mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=8334989;
77
129
180
443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Watson R.J.;
                                                                                                                  Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUCLEAR.
    PHOSPHORYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A/CDK2 DURING S-PH
PROBABLY INVOLVED
                                                                                                               protein; DNA-binding; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 704 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----SGGEGSNSESATAIV----
  (BY CDK2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S-PHASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PSNILSPKL----
  (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    168
```

SOLE LANGE COLCUCTOR COLCUCTOR STANDAR STANDAR SOLE COLCUCTOR COLCUCTOR STANDAR STANDAR STANDAR SOLE COLCUCTOR STANDAR STANDAR

Ş

₽

DNA.

Implications

. .

region:

the

c-myb

```
Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                 CHICK
                                                                                                                                                                                                                                                                                                       MYB_CHICK STANDARD; PRT; 641 AA P01103; PTUL-1986 (Rel. 01, Created) 01-APR-1988 (Rel. 07, Last sequence update) 20-AUG-2001 (Rel. 40, Last annotation updat
                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE=87089708; PubMed-3025608;
Gerondakis S., Bishop J.M.;
Structure of the protein encoded
                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                  MYB PROTO-ONCOGENE
 SEQUENCE OF 1-7
                         "Nucleotide sequence of chicken implications for myb oncogene ac nature 319:604-606(1986).
                                                                SEQUENCE FROM N.A.
MEDLINE=86118729; Pu
ROSSON D., Reddy P.;
                                                                                                                                     c-myb
                                                                                                                                                                                                                                           Archosauria; Aves;
                                                                                                                                                                                                                                                                       Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
                                                                                                                                                                                                                  NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                      378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KGAWTKEEDQRLINYIRVHGEGCWRSLPK-AAGLLRCGKSCRLRWINYLRPDLKRGNFTE
                                                                                                                   Cell. Biol. 6:3677-3684(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AWCDLSKFDLPEEPSTEGSVVSSPVQPQTSQQQQEEALQSSQQAATPGPS-VTEYRLD--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DLGEVRTPEPPESLKREYQEFSSPETSLPYKWVVEAANLLIPAVGSSLSEALDLIESDPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SVSKSSSIKNP-SLDFNYNEFQ-----FK------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGI----
                                                                                                                                                                                                                                                                                                                                                                                                                                   -GHTISDLSRSSRGELIPISPSTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                             IGIVSADSSRVSNANSAESKPKVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LLLELEDKEQHQGVQPVDGQGSLVSSWPLVPSIVKEESSEEEIAIAATSAKELGHEPVPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----DPQTHRPLNQTANTNTV--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EEDRIICEAHKVLGNRWAEIAKMLPGRTDNAVKNHWNSTIKRKVDTGGFPAESRDCKPVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KGPWTKEEDQKVIELVKKYGTKQWTLIAKHLKG--RLGKQCRERWHNHLNPEVKKSCWTE 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNTDSLEEPNCTAS - - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         581
                                                                                                                                              Bishop J.M.;
the protein encoded by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA;
 FROM N.A
                                                                               PubMed=3753748;
                                                                                                                                                                                                                                           Neognathae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  447
                                                                                                                                                                                                                                                      Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        · 19.2%;
27.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ¥,
                                                                                                                                                                                                                                                                                                (C-MYB).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --SGMTTDEEQQEQLHKKQQY---GPSNGQDINLELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY).
PHOSPHORYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                                                                                                                              244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY).
PHOSPHORYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PHOSPHORYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PHOSPHORYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY).
PHOSPHORYLATION
                                                                                                                                                                                                                                          Craniata; Vertebrata; Eute: ; Galliformes; Phasianidae;
                                        en c-myb complementary DNA
activation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OEF09C1EE2184E47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          304.5;
No. 6.
                                                                                                                                                  the
                                                                                                                                                                                                                                                                                                                                                                  641 AA
                                                                                                                                                                                                                                                                                                             update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .1e-1
                                                                                                                                               chicken proto-oncogene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BY CDK2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDK2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDK2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDK2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDK2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                        Euteleostom1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -TAPTELDFRNSPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BY
                                                     and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (BY
                                                                                                                                                                                                                                           Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11;
 DNA_BIND
                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                        the
                                                                                                                                                         TRANSFAC; T00139; ... myb_DNA_bind. InterPo. 1PR001005; myb_DNA-binding; 3. SMART; SM00395; SANT; 3.
                                                                                                                                                                                                                                                                                 EMBL; X03477; CAA27197.1; ALT_SEQ.
EMBL; M14129; AAA48962.1; -.
EMBL; X12495; CAA31015.1; -.
EMBL; M35509; AAA48698.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Frampton J., Glbson T.J., Ness S.A., Doederlein G., Graf T.;
"Proposed structure for the DNA-binding domain of the Myb oncoprotein based on model building and mutational analysis.",

Protein Eng. 4:891-901(1991)

- FUNCTION: TRANSCRIPTIONAL ACTIVATOR; DNA-BINDING PROTEIN THAT SPECIFICALLY RECOGNIZE THE SEQUENCE 5'-YAAC(6/T)G-3', PLAYS AN IMPORTANT ROLE IN THE CONTROL OF PROLIFERATION AND DIFFERENTIATION
DOMAIN
                         DOMAIN
                                                                                                       Proto-oncogene;
                                                                                                                                                                                                                                        EMBL; M35508;
                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (s or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                                                     between
                                                                                                                                                                                                                                                                                                                                                                                                                                   This
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  proto-oncogene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Soret J., Vellard M., Martinerie C., Perbal "Organization of 5'-proximal c-myb exons in for c-myb tissue-specific transcription."; FEBS Lett. 232:227-234(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Nucleotide sequence of chicken myb proto-oncogene detection of an evolutionarily conserved element."; Nucleic Acids Res. 16:11521-11530(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Urbanek P., Dvorak P., Paces V., Travnicek M.
                                                                                                                     PROSITE;
                                                                                                                                                                                                                  PDB; lPOM;
                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3D-STRUCTURE MODELING OF 142-192.
MEDLINE-92285330; PubMed-1817253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mol. Cell. Biol. 11:3987-3996(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Graesser F.A., Grat T., Lipsick Protein truncation is required
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Graesser F.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-88211864;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IISSUE-Thymus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 73-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=89098307; PubMed=3145493;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-91304390; PubMed-2072904;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRUNCATION MUTATIONS
                                                                                                                                                                                                                                                                                                                                                                                                     s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EN European Bioinformatics Institute. There are no resta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OF HEMATOPOIETIC PROGENITOR CELLS.
SUBCELLULAR LOCATION: NUCLEAR.
DOMAIN: COMPRISED OF 3 DOMAINS; AN N-TERMINAL DNA-BINDING A CENTRALLY LOCATED TRANSCRIPTIONAL ACTIVATION DOMAIN AND TERMINAL DOMAIN INVOLVED IN TRANSCRIPTIONAL REPRESSION.
TOMAIN: TRUNCATION OF EITHER THE N- OR C-TERMINAL OF C-MYE DOMAIN: TRUNCATION OF ETHER THE N- OR C-TERMINAL OF C-MYE TO INCREASED TRANSFORMATION AND TRANSACTIVATION POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY: BELONGS TO THE MYB FAMILY.
                                                                                                                                                                                                                                                      X12495;
M35509;
M35506;
M35507;
                                                                                                                     PS00334; MYB_2; PS50090; MYB_3;
                                                                                                                                              PS00037; MYB_1;
                         328
                                                   34
87
139
275
                                                                                                                                                                                                                               TVCHM
                                                                                                                                                                                                                                        AAA48698.1;
AAA48698.1;
AAA48698.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Graf
                                                                                                       Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PubMed=2452755;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P., Bartunek M.,
                         465
                                                   86
138
189
327
                                                                                                        protein;
                                                                                                                                                                                                                                        JOINED
JOINED
                    MYB.

MYB.

TEANSCRIPTIONAL ACTIV
(BY SIMILARITY).

NEGATIVE REGULATORY I
             SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 J.S.;
for t
                                                                                                     DNA-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vlach
                                                                                                                                                                                                                                                                                                                                                                (See
                                                                                                                                                                                                                                                                                                                                                                                                  There are no restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 activation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ۳
.
                                                                                                                                                                                                                                                                                                                                                                                          as
                                                                                                                                                                                                                                                                                                                                                               http://www
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B.;
chicken
                                                   ACTIVATION
                                                                                                       Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pecenka
                                                                                                                                                                                                                                                                                                                                                                                          its content
                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of
Fi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     promoter
```

γ̈́

and

for

n no way

EMBL

a collaboration

outstation

on

isb-sib

.ch/announce,

3D-structure

DOMAIN

(BY

POTENTIAL.

LEADS

DOMAIN,

Š 밁 S В Š 밁 Š 밁 Š 맑 ő

SEQUENCE

641 AA; 72466 MW; DDDD62BFD3B29187 CRC64;

Search completed: January 23, 2002, 21:22:06 Job time: 553 sec

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                            Pred. No. 1s the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
717
704.5
702
684
684
681.5
674.5
652
584.5
                                                                                                                                                                                                                                                  Score
                                                                                                                       100.0
53.9
48.5
47.8
45.8
45.6
                                                                                                                                                                                                                                                Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                473505 segs, 146272329 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SPTREMBL_17:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLOSUM62 .
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-453-387A-2
1584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              January 23, 2002, 21:11:38; Search time 91.99 Seconds (without alignments) 467.486 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MGRSPCCEKAHTNKGAWTKE.....RNCQNSNSNGFYSYCRPLDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 4.5 Copyright (c) 1993 - 2000 Comp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sp_archea:*
sp_bacteria:*
                                                                                                                                                                                                                                                                                                                                                                                                                              sp_phage: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                    sp_mammal:*
sp_mhc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sp_fungi:*
                                                                                                                                                                                                                                                                                                                                                                                                                                        sp_organelle:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sp_invertebrate:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sp_human:*
                                                                                                                                                                                                                                                                                                                                                               sp_vertebrate:*
sp_unclassified:*
                                                                                                                                                                                                                                                                                                                                                                                        sp_virus:*
                                                                                                                                                                                                                                                                                                                                                                                                   sp_rodent:*
                                                                                                                                                                                                                                                                                                                                                                                                               sp_plant:*
                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                   В
           049608
023889
042379
045358
023890
049021
                                                                                                                                                                                                                                                   Ħ
                                                                                                            Q43436
P81395
Q9S9K9
Q38851
Q043525
Q9ATD1
Q9SZP1
Q49774
P81393
                                                                                     Q9SM28
                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           473505
                                                                                                                                                                                                                                                  Description
                                                                        Q9s7y2
Q9sm28
Q49608
                                                                                                                                                                                                                Q43436
P81395
                                                                                                                                                 Q9atd
                                                                                                                                                                                       Q38851
                                                                                                                                                                                                   Q9s9k9
                                                                                                            5 lycopersico
1 gossypium h
1 arabidopsis
4 arabidopsis
3 antirrhinum
                                                          2 arabidopsis
8 arabidopsis
8 arabidopsis
9 oryza sativ
                                                                                                                                                                         9 arabidopsis
1 arabidopsis
4 hordeum vul
                                                                                                                                                                                                           6 gossypium h
5 antirrhinum
) oryza sativ
1 gossypium h
5 arabidopsis
                                   arabidopsis
arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               294
```

45	44	43	42	41	40	<u>3</u> 9	ω 8	37	36	u G	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	
522	523.5	524	524.5	526	526	528	528.5	530	530.5	531	3	533.5	34	536	537	539	539.5	39	543	546	9	549.5	w	567	584.5	•
ω	w	ω	ω	۳	ω	ω	ω	ω	ω	w	ω	ω	ω.	u	33.9		٠.	.~	٠.	٠.			•	5	<u>.</u>	
299	336	249	340	578	314	421	352	282	269	327	286	326	324	388	368	352	350	254	414	247	274	282	345	325	352	
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Q9M2D9	Q9FLR1	Q38850	Q9FR07	Q9FVU6	Q9C695	202992	065409	Q9C7U7	Q9SEC4	Q9SPG7	Q9SPG1	Q9LXF1	240M6O	Q40920	004141	022685	Q9LDR8	Q9ATD2	Q9SAV9	Q9ATD9	Q40173	Q9M0J5	Q9LE63	Q9LFE1	Q9LQE2	
				,																						
											•					-										
N.	r	Q38850	Q9fr07	Q9fvu6	Q9c695	Q02992	065409	Q9c7u7	Q9sec4	Q9spg7	Q9spg1	Q91xf1	Q9m0y5	Q40920	004141	022685	Q91dr8	Q9atd2	Q9sav9	Q9atd9	040173	Q9m0j5	Q91e63	Q91fe1	Q91qe2	
ara	arai	ara	zea	ara	ara	peti	ara	ara	mrd	ara	ara	ara	ara	pic	oryza	arab	aral	BOB	aral	gos	Lyco	aral	arab	arab	arab	
-	arabidopsis	bidopsis	mays su	bidopsis	bidopsis	petunia hyb	bidopsis	pidopsis	pinella	pidopsis	bidopsis	arabidopsis	bidopsis	ea maria	za sativ	bidopsis	bidopsis	2 gossypium h		sypium h		pidopsis	dopsi	dops	oldopsis	_

## ALIGNMENTS

	120	QY 61 LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG	
	60	Db . 1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY	
	60	QY 1 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWIN	
0,	Gaps	Query Match 100.0%; Score 1584; DB 10; Length 294; Best Local Similarity 100.0%; Pred. No. 2.2e-130; Matches 294; Conservative 0; Mismatches 0; Indels 0; G	
		DNA-binding.	
		DR PROSITE; PS00334; MYB_2; 1.	
		PROSITE; PS00037;	
		SMART; SM00395; S	
		٠	
		-	
		EMBL; L04497; AAA33067.1;	
		RA Wilkins T.A., Lu C.C.;	
		OX NCBI_TaxID=3635;	
	dae;		
	••		
		OS Gossypium hirsutum (Upland cotton).	
		COTTON DNA-B	
		01-JUN-2001 (TrEMBLrel. 17,	
		01-NOV-1996 (	
		043436;	
		ID Q43436 PRELIMINARY; PRT; 294 AA.	
		Q43436 . F	
		111111111111111111111111111111111111111	

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                         В
                                                                                                                                     δô
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFT WERE REPORTED TO COLOR FOR SOME SOFT OF SOME SOFT OF SOME SOFT OF SOFT OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mendel; 24823; Antma; Myb; 24823
InterPro; IPRO01005; Myb_DNA_bind.
Pfam; PP00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
PROSITE; PS00037; MYB_1; UNKNOWN_1.
PROSITE; PS00034; MYB_2; 1.
PROSITE; PS00090; MYB_3; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P81395
P81395;
01-JUN-1998 (TrEMBLrel. 0
01-JUN-1998 (TrEMBLrel. 0
01-JUN-2001 (TrEMBLrel. 0
01-JUN-2001 (TrEMBLrel. 1
MYB-RELATED PROTEIN 330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-J1:522; TISSUE-FLOWER BUDS;
MEDLINE-93005689; PubMed-1840903;
MEDLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antirrhinum majus (Garden snapdragon).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Asteridae; euasterids I; Lamiales; Veronicaceae; Antirrhinum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PIR; JQ0957; JQ0957.
HSSP; P01103; 1POM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nuclear protein; DNA-binding; Repeat; Transcription regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSFAC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   - I - TISSUE SPECIFICITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=4151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
           177
                                                                         121
                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
les 178; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                 بر
                                                                                                                                                                                                                                                                                                                                                       PKYDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGFYSYCRPLDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESK 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL 180
                                                                                                                                                                                                               PKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGFYSYCRPLDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESK
                                                                                                                                            IDPQTHRPLNQTANTNTVTAPTE----LDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSN 176
TDSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANS
                                                                         IDPQTHRSLNSATTTATAT - PTVNNSCLDFRTSP - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T02928;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  274 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30679 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         53.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06,
17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MATURE FLOWER TO THE MYB FA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 854.5; DB 10; Pred. No. 8.6e-67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prescott A.G., Robernes from Antirrhinum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69831BC41161BE8B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FAMILY OF PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Roberts K., Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   flowers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              274;
                                                                         S----S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                         170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
```

```
δÃ.
                                                                                                뫄
                                                                                                                         Ş
                                                                                                                                                       Вb
                                                                                                                                                                                                             В
                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                            밁
                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O9S9K9 PRELIMINARY; PRT; 257 AA.
O9S9K9; TEMBLEL 13, Created)
O1-MAY-2000 (TrEMBLEL 13, Last sequence update)
O1-JUN-2001 (TrEMBLEL 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                    Pfam; PF00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
PROSITE; PS00397; MYB_1; UNKNOWN_1.
PROSITE; PS00334; MYB_2; 1.
PROSITE; PS0030; MYB_3; 2.
SEQUENCE 257 AA; 29352 MW; 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Arabidopsis thallana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidi
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (JUL-1998) to the EMBL; AC003979; AAC25522.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vysotskaia V.S., Schwartz J.R., Toriumi M., Yu G., Oji O., Kwan
Liu S., Li J., Araujo R., Au M., Brendel V., Buehler E., Conway
Conway A.R., Dewar K., Feng J., Kim C., Kurtz D., Li Y., Palm C.
Shinn P., Sun H., Davis R.W., Ecker J.R., Federspiel N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T22J18.19 PROTEIN T22J18.19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                        HSSP; P01103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Arabidopsis thaliana chromosome 1 BAC T22J18 sequence, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               171
                234
                                            161
                                                                                                                            121
                                                                      181
                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              heologis A.;
                                                                                                                                                        61
                                                                                                                                                                                   61
                                                                                                                                                                                                                               MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SSSTDDTKCNSS----TTEESQSLITPPPKEEEKSVPLVDLELSLGLPSQSQCNKSVSLN
LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                             MGRSPCCEKAHMNKGAWTKEEDQLLVDYIRKHGEGCWRSLPRAAGLQRCGKSCRLRWMNY
                                                                                                                   IDPQTHRPLNQTANTNTVTAPTELDERNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                   EEP-----NCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIG-IVSADSSR-VSN
                                                                                                  IDPNSHRLINE--
                                                                                                                                                        LRPOLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLLSRG
                                                                                                                                                                                                                                                                      160;
                                                                                                                                                                                                                                                                                                                                                                                                          IPRO01005; Myb_DNA_bind.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (JUN-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (JAN-1998)
                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           1POM.
                                                                                                                                                                                                                                                                                  48.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ៥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the
                                                                                                                                                                                                                                                                   33;
                                                                                                                                                                                                                                                                                Score 768; DB 10;
Pred. No. 2.8e-59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                           132D80DEA58D7D93 CRC64;
                                                                                                                                                                                                                                                                      Mismatches.
                                          -YGNEEDWYLNLELSYGPSYRYESTRKVSV
                                                                                                -SVVSPSSLQNDVVETIHLDFSGPVKPEPV
                                                                                                                                                                                                                                                                      53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           databases
                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                      Indels
                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conway A. Palm C.J.
                                                                                                                                                                                                                                                                      42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      - 43
                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                   120
                                                                                                                            180
                                                                                                                                                          120
                                                                                                                                                                                                                60
                                                                                                                                                                                                                                            60
                                                                                                  160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 226
```

7;

밁

210

VDSAESTRRWGSELF - - -

-GAHESDAVCLCCRIGLFRNESCRNCRVSD 253

```
밁
                    δÃ
                                             문
                                                                   8
                                                                                            В
                                                                                                                   δÃ
                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1996
01-NOV-1996
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q38851;
Q38851;
                                                                                                                                                                                                                                                                           Mendel; 6886; Arath; Myb; 6886.
InterPro; IPR001395; Aldo_ket_red.
InterPro; IPR001005; Myb_DNA_bind:
Pfam; PF00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
                                                                                                                                                                                                 DNA-binding.
236 AA;
                                                                                                                                                                                                                                                                                                                                                               EMBL; U26936; AAA98761.1; -. EMBL; AL161515; CAB78069.1;
                                                                                                                                                                                                                                                                                                                                                                                    EU Arabidopsis sequencing project, Submitted (MAR-2000) to the EMBL/G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Spiegel L.A., Huang E.N., Nascimento L.U., de la Bastide M., Preston R.R., Matero A., Shah R., O'Shaughnessy A., Rodriguez
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the DNA-binding properties of their products."; Plant J. 8:963-972(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheo;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Shekher M., Schutz K., See L.H., Swaby I., Mewes H.W., Lemcke K., Mayer K.F.X.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L1 S.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-LANDSBERG ERECTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MYB OR AT4G09460.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA-BINDING PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (MAR-2000) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (MAY-1995) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-LANDSBERG ERECTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-96132152; PubMed-8580966;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID-3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Heazlewood J.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
 121
                         121
                                               61
                                                                       51
                                                                                           MGRSPCCEKAHINKGAWIKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                    IDPQTHRPLNQTANTNT-VTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDS
                                                         LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
IDPQTHRQINESKTVSSQVVVP---
                                             LRPDLKRGNFTDDEDQIIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLLSHG
                                                                                                                                             145;
                                                                                                                                                                                                                                                                                                                                                  P01103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Parish
                                                                                                                                                                                                                                                                                                                                       T02539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TrEMBLrel. 01, (TrEMBLrel. 01, (TrEMBLrel. 17,
                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                            MYB_1; UNKNOWN_1
MYB_2; 1.
MYB_3; 2.
                                                                                                                                                                                                                                                               ALDOKETO_REDUCTASE_3;
                                                                                                                                                                                                       26473 MW;
                                                                                                                                                       48.1%; 58.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                    the EMBL/GenBank/DDBJ
                                                                                                                                             39;
                                                                                                                                                                                                                                                                                                                                                                                      EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                            Score 762; DB 10;
Pred. No. 8.4e-59;
9; Mismatches 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                       D53F9AC798D7BBCB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   236
                                                                                                                                                                                                                                                                 UNKNOWN_1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Habermann K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  de la Bastide M., Vil D.M.
 - IQNDAVEYSESNLAVKPKTEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  update)
                                                                                                                                            40;
                                                                                                                                                                                                                                                                                                                                                                                      databases
                                                                                                                                                                                                                                                                                                                                                                                                                                    databases
                                                                                                                                                                 Length 236;
                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dedhia N.N.
                                                                                                                                            22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         studies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rosidae;
                                                                                                                                           Gaps
 163
                       179
                                             120
                                                                    120
                                                                                                                                            5,
```

```
Ş
         Š
                              B
                                                                       В
                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                 Query Match
Best Local Similarity
Matches 152; Conserv
                                                                                                                                                                   DNA_BIND
DNA_BIND
SEQUENCE
                                                                                                                                                                                                                                                      Mendel; 8596; Horvu; Myb; 8596.
InterPo; IPRO1005; Myb_DNA_bind.
Pfam; PF00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
                                                                                                                                                                                                                                                                                                          EMBL; X70876; CAA50221.1; -. EMBL; X70880; CAA50225.1; -. HSSP; P01103; 1POM.
                                                                                                                                                                                                                                                                                                                                                                                                                            "Myb genes from Hordeum vulgare: tissue-specific expression chimeric Myb promoter/Gus genes in transgenic tobacco."; plant J. 4:411-422(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hordeum vulgare (Barley).
Eukaryota; Vildiplantae; Str.
Spermatophyta; Magnollophyta;
Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q06944;
Q1-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206944
                                                                                                                                                                                                              Nuclear protein; DNA-binding; Activator; Transcription
                                                                                                                                                                                                                        PROSITE; PS00037; MYB_1; PROSITE; PS00334; MYB_2; PROSITE; PS50090; MYB_3;
                                                                                                                                                                                                                                                                                                 TRANSFAC;
                                                                                                                                                                                                                                                                                                                                         Milano (1988).
                                                                                                                                                                                                                                                                                                                                                                         Salamini F
                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-CV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rohde W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRĀIN=CV. ABYSSINIAN 2231; TISSUE-SHOOT MERISTEM MEDLINE-94035190; PubMed-8220488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         мувну5
                                                                                                                                                                                                   Repeat
                                                                                                                                                                                                                                                                                                                                                    The genetics
                                                                                                                                                                                                                                                                                                                                                                                  Rohde W.,
                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wissenbach M., Ueberlacker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID-4513;
                                                                                                                                                                                                                                                                                                                                                  In) Styles D.E., Gavazzi G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                61
                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OR MYB2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  v
                                           LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                     MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                LRPDLKRGNFTDDEDELIIRLHSLLGNKWSLIAGQLPGRTDNEIKNYWNTHIKRKLLSRG
                                                                         MGRSPCCEKEHTNKGAWTKEEDQRLIAYIRANGEGCWRSLPKAAGLLRCGKSCRLRWMNY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SKPWCD 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SSD-NGASTSGTTTDEDLRQ--NGECYYSDNSGHIKLNLDLTLGFGSWSGRIVGVGSSAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ-DINLELSIGIVSADSSRVSNANSAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SKPKVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEIN
                                                                                                                                                                                                                                                                                                 T02888; -.
                                                                                                                                                                                                                                                                                                                                                                                   Marocco
                                                                                                                                                                                                                                                                                                                                                                                 ABYSSINIAN 2231; TISSUE-LEAF;
Marocco A., Wissenbach M., Barzen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     244
                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                               62
                                                                                                                                                                     <u>8</u>
                                                                                                                                                                    61
102
27602
                                                                                                                           47.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01,
01,
17,
                                                                                                                                                                                                                                            UNKNOWN_1
                                                                                                                                                                                                                                                                                                                                                              ິດ
ເ
                                                                                                                                                                    MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Streptophyta; En
/ta; Liliopsida;
                                                                                                                 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B., Vogt F.,
                                                                                                                                                                                                                                                                                                                                                  pp.79-95, Edizioni Edicopli,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence up
                                                                                                                Score 756.5; DB 10;
Pred. No. 2.7e-58;
2; Mismatches 55;
                                                                                                                                                                    MYB. 07E12727D3D8EB25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Embryophyta; Tracheophyta;
a; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Becker D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e update)
lon update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             À
                                                                                                                                                                                                                                                                                                                                                                                   E3
                                                                                                                                                                     CRC64
                                                                                                                                                                                                                                                                                                                                                                                   Kristiansen
                                                                                                                 Indels
                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Salamini
                                                                                                                                                                                                              regulation;
                                                                                                                                      251;
                                                                                                                 61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10
                                                                                                                Gaps
                              120
                                                  120
                                                                         60
                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               238
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOUR BEART AND CONTRACT OF THE PROPERTY OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                              δÃ
                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                          Š
                                                                                                    뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 151; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00334; PROSITE; PS50090; NSEQUENCE 273 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lycopersicon esculentum (Tomato).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Asteridae; euasterids I; Solanales; Solanaceae; Solanum.
NCBI_TaxID=4081;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01'NOV-1996 (TREMBLIEGL 01, 01-NOV-1996 (TREMBLIEGL 01, 01-JUN-2001 (TREMBLIEGL 17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-CV. AILSA CRAIG; TISSUE-HYPOCOTYL; MEDLINE-96270378; PubMed-8639738; Lin Q., Hamilton W.D.O., Merryweather A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSCRIPTION FACTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q43525;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q43525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X95296; CAA64614.1;
HSSP; P01103; 1POM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       plant Mol. Biol. 30:1009-1020(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MYB OR THM27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mendel; 8912; Lyces; Myb; 8912.
InterPro; IPROOL005; Myb_DNA_bind.
Pfam; PF00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Cloning and initial characterization of 14 myb-related tomato (Lycopersicon esculentum cv. Ailsa Craig).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSFAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
202
                                                                                                       158
                                                                                                                                                          181
                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                         13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TSTGEPRC----
                                                                                                                                                                                                                                                                                                                    LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKKKLISRG 120
                                                                                                                                                                                                                                                                                                                                                                                                                           MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDPHTHRPLTAVIDAAAPTRPAQIAVPARAAPTTMFALPTKQQQPPVPVESSDDDGSSGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNS----NGFYSYCRPLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DSLEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSA
QQLDHHRHH---
                                               PKYDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGF 285
                                                                                                                                                       EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESK
                                                                                                                                                                                                                                                                 IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                                                       EMINIKAEFVETSKESDNNEI--IQEKSSSCLPDLNLELRI--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PS00334; MYB_2; 1.
PS50090; MYB_3; 2.
273 AA; 31100 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PS00037; MYB_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
-QRSSSLCFTCSLGIQNSKDCSCGSESNGNGW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            46.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TSHPVCLCRHLGFRGGEAC - SCROADSAGSQGGGFRYFRPLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 728; DB 10;
Pred. No. 9.2e-56;
6; Mismatches 64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6F2E9365F3003AFB CRC64;
                                                                                                                                                                                                                  ·NDPTTIPKVTTITEAAAHENIKDIDQQD-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---PDLNLDLSVGPPAADTP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNAs from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44;
                                                                                                             SPPHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   237
                                                                                                             201
                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                  157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
```

RESULT Q9ATD1

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                    Вb
                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
 Query Match
Best Local S
Matches 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9ATD1
Q9ATD1;
01-JUN-2001
01-JUN-2001
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GНМҮВ9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gossypium hirsutum (Upland cotton).

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Epuraryota; Viridiplantae; Streptophyta; Embryophyta; Rosidae; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Malvales; Malvaceae; Gossypium.
                                                                                                                                                                                               O9SZP1;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence up
01-JUN-2001 (TrEMBLrel. 17, Last annotation
PUTATIVE TRANSCRIPTION FACTOR (MYB4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-ACALA MAXXA; TISSUE-DAY OF ANTHESIS OVULE;
MATZ E.C., BUTT B.;
"Cotton seed fibers are trichomes.";
"Cotton seed fibers are trichomes.";
Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF336286; AAK19619.1;
"SEQUENCE 264 AA; 29629 MW; E09BCEB4E7662E95 CRC64;
                                                                                                                          F20M13.180 OR AT4G38620.
Arabidopsis thaliana (Mouse-ear Cress).
Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Epermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Roside eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                        Q9SZP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=3635;
             SEQUENCE FROM N.A.
                                        SEQUENCE FROM N.A., Kutzner M., Wambutt
Bevan M., Wedler H., Kutzner M., Wambutt
Mayer K.F.X., Schueller C.;
Submitted (FEB-1999) to the EMBL/GenBank/
                                                                                                             NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                             157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                    195
                                                                                                                                                                                                                                                                                                                                              246 Y
                                                                                                                                                                                                                                                                                                                                                                       288 Y 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MGRSPCCEKAHTNKGAWTKEEDORLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
Arabidopsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSAESK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGRSPCCEKAHTNKGAWTKEEDDRLIAYIRAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIRRKLLSRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                                    PESFKTG--
                                                                                                                                                                                                                                                                                                                                                                                                                                PKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEIC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                           NNP-----IGFITKDEKKIPVQER-----CPDLNLDL--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IDPATHRPLNEAS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                                                                                                                                                                                                                                                                                              246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TrEMBLrel. 17, (TrEMBLrel. 17, (TrEMBLrel. 17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                      PRELIMINARY;
 sequencing project
                                                                                                                                                                                                                                                                                                                                                                                                     ----GRTLCFICSLGVKNSKDCTCSTITTAAGSSSSSSSSSSNSNSSNSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --------QDVTTISFSGA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 726; DB 10;
Pred. No. 1.3e-55;
27; Mismatches 53
                                            EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264
                                                                                                                                                                                                                                                                         282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
                                                                       7.
                                                                                                                                                                                                                                                                         ₿
                                                                                                                                                                                                                 update)
on update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 53,
                                                                         Bancroft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----RISPPYYQQTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                  RNCQNSNSNGFYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEEKEKINTNSN
                                                                    Ι.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 68;
                                                                                                                                               Rosidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                          H.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                   287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7;
```

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                              STRAIN-CY COLUMBIA;
MEDLINE-99056848; PUNMed-9839469;
Kranz H.D. Denekamp M., Greco R., Jin H.-L., Leyva
Petroni K., Urzainqui A., Bevan M., Martin C., Smeek
Tonelli C., Paz-Ares J., Weisshaar B.;
"Towards functional characterisation of the members
gene family from Arabidopsis thaliana.";
Plant J. 16:263-276(1998).
                                                                                                                                                                                                                                                                                           049774;
                                                                                                                                                                                                                                                   01-JUN-1998 (TrEMBLrel. 06, Created)
01-AUG-1999 (TrEMBLrel. 11, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EU Arabidopsis sequencing proje
submitted (MAR-2000) to the EME
EMBL; AL035540; CAB37518.1; -.
EMBL; AL161593; CAB80526.1; -.
HSSP; P01103; 1POM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00249; myb_DNA-binding; SMART; SM00395; SANT; 2. PROSITE; PS00037; MYB_1; 1. PROSITE; PS00034; MYB_2; 1. PROSITE; PS00039; MYB_3; 2. SEQUENCE 282 AA; 31808 MW; C
                                                                                                                                                                             Spermatophyta; Magnoliophyta; eudicotyl eurosids II; Brassicales; Brassicaceae;
                                                                                                                                                                                                   Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta;
                                                                                                                                                                                                                                             PUTATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Murphy G., Ridley P., Submitted (MAR-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (FEB-1999)
 TISSUE-WHOLE PLANTS
             SEQUENCE OF 55-99 FROM
                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                               NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                         223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                   ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LRPDLKRGNETEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                         RCFKCSLGMINGMECRCGRMRCDVVGGSSKGSDMSNGFDFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLEL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IDPQTHRPLNQTANTNTVTAPTELDFRNSPT-SVSKSSSIKNPSLDFNYNEFQFKSNTDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDPTSHRPI-QESSASQDSKPTQLEPVTSNTINISFTSA---PKVETFHESISFPGKSEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIRRKLINRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGRSPCCEKAHTNKGAWTKEEDERLVAYIKAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03; 1POM.
IPR001005; Myb_DNA_bind.
                                                                                                                                                                                                                                                                                                                                                                                               SIGIVSADSSRVSNAN----SAESKPKVDNNNFQFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              45.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hudson
to the 1
             N.A
                                                                                                                                                                                                                                           FACTOR (R2R3-MYB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the
                                                                                                                                                                                       Streptophyta; Embryophyta; Tracheo, ta; eudicotyledons; core eudicots;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         project;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S., Mewes H.W., I
EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 723;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CEFB4F1E9D8A8687 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   M1smatches
                                                                                                                                                                                                                                                                                                          282
                                                                                                                                                                                                                                                                                                                                                                                                                          - PDLNLELRISLPDDVDRLQGHGKSTTP
                                                                                                                                                                                                                                         tion update)
TRANSCRIPTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 10;
                                                                                                                                                                                                                                                                                                         Ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lemcke K.,
J databases.
                                                                                     Leyva A.,
Smeekens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49;
                                                                                                                                                                                                                                                                                                                                                                         263
                                                                                                                                                                                                                                                                                                                                                                                                 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                              of
                                                                                                                                                                                                   Tracheophyta;
                                                                                                                                                                                                                                           FACTOR)
                                                              the
                                                                                      Meissner
S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mayer K.F.X.;
                                                              R2R3-MYB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                   219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7;
```

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SQ DR
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match:
Best Local Sin
Matches 145;
                                                                                                                                                                                                                                                                                                                   01-JUN-1998
01-JUN-1998
01-JUN-2001
        TRANSFAC; T02926; ...
Mendel; 24821; Antma; Myb; 24821.
InterPro; IPR001005; Myb_DNA_bind.
Pfam; PF00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00249; myb_DNA-binding; SMART; 2. SANT; 2. PROSITE; PS00037; MYB_1; 1. PROSITE; PS00034; MYB_2; 1. PROSITE; PS00034; MYB_3; 4. PROSITE; PS50090; MYB_3; 4.
                                                                                                                                                                                                                                                                                                                                                       P81393;
P81393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; Z95763; CAB09195.1; -.
HSSP.:P01103; 1POM.
Mendel; 27725; Arath.Myb;27725.
InterPro; IPR001005; Myb_DNA_bind.
                                                                                                                     Jackson D., Cullanez-Macia F., Prescott A.G., Rober "Expression patterns of myb genes from Antirrhinum plant Cell 3:115-125(1991).
-- FUNCTION: MAY BE A TRANSCRIPTIONAL ACTIVATOR.
-- TISSUE SPECIFICITY: ROOT, STEM, LEAF, SEED POD.
                                                                                                                                                                                                                                           Antirrhinum majus (Garden snapdragon).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Asteridae; euasterids I; Lamiales; Veronicaceae; Antirrhinum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AF062860; AAC83582.1; EMBL; Z95763; CAB09195.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Romero I., Fuertes A.,
Submitted (MAY-1997) t
                                                                                                                                                                                                                                                                                             MYB 308
                                                                                                                                                                                                                                                                                                        MYB-RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                    PIR; JQ0960; JQ0960.
HSSP; P01103; 1POM.
                                                                                                                                                                                STRAIN-JI:522; TISSUE-FLOWER BUDS;
MEDLINE-93005689; PubMed-1840903;
                                                                                                                                                                                                STRAIN-JI:522;
                                                                                                                                                                                                                                 NCBI_TaxID=4151;
                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                177
                                                                                                                                                                                                                                                                                                                                                                                                                                 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                           10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AND MATURE FLOWER. SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                                                                                                                                                                                                                                                                                                                                                                                                                                RCFKCSLGMINGMECRCGRMRCDVVGGSSKGSDMSNGFDFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----SIGIVSADSSRVSNAN----SAESKPKVDNNNFQFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQDINLEL---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDPTSHRPI-QESSASQDSKPIQLEPVTSNTINISFTSA---PKVETFHESISFPGKSEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IDPQTHRPLNQTANTNTVTAPTELDFRNSPT-SVSKSSSIKNPSLDFNYNEFQFKSNTDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIRRKLINRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           282 AA;
                                                                                                                                                                                                                                                                                                                                         (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                     (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMLTFKEEKDECPVQEKF - - - - PDLNLELRISLPDDVDRLQGHGKSTTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         45.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31820 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Benito M.J., Malpica J., Leyva A., o the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                   06,
17,
                                                                                               oT
                                                                                               THE MYB
                                                                                                                                                                                                                                                                                                                   Created)
Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 717; DB 10; Pred. Nc. 8.7e-55;
                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F4CB4F0B47B575AD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                               FAMILY OF PROTEINS
                                                                                                                                                                                                                                                                                                                                                                    232
                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                   on update)
                                                                                                                                                                       Roberts
                                                                                                                      POD,
                                                                                                                                                                                                                                                                                                                                                                                                                                 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                         251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 282;
                                                                                                                                                           flowers
                                                                                                                       IMMATURE FLOWER
                                                                                                                                                                       K., Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Paz-Ares
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ٦
:
```

7;

PROSITE;

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SETER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 150; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00334; MYB_2; 1.
PROSITE; PS50090; MYB_3; 2.
Nuclear protein; DNA-binding; Repeat; Transcription regulation
                                                                                                                                                                                                                                                   Federspiel N.A., Palm C.J., Conway A.B., Conn L., Hansen N.F. Altafi H., Araujo R., Hulzar L., Rowley D., Buehler E., Dunn Gonzalez A., Kremenetskaia I., Kim C., Lenz C., Li J., Liu S. Luros S., Schwartz J., Shinn P., Toriumi M., Vysotskaja V.S., Walker M., Yu G., Ecker J., Theologis A., Davis R.W.; Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                               Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core e
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-2000 (TIEMBLIEL 13, C
01-MAY-2000 (TIEMBLIEL 13, L
01-JUN-2001 (TIEMBLIEL 17, L
PUTATIVE DNA BINDING PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9S7Y2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9S7Y2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
InterPro; IPR001005; Myb_DNA_bind.
Pfam; PF00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
PROSITE; PS00037; MYB_1; UNKNOWN_1
PROSITE; PS00334; MYB_2; 1.
                                                                   Plant J. 16:263-276(1998).
EMBL: AC006551; AAF18515.1; -
EMBL: AF0082859; AAC83581.1; -
HSSP; P01103; 1POM.
                                                                                                                                                                               Kranz H.D.,
                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                       F12K8.1 OR MYB3
                                                                                                                          gene family from Arabidopsis thaliana.
                                                                                                                                                                                               MEDLINE-99056848; PubMed-9839469;
                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=3702;
                                                                                                                                          "Towards functional characterisation of the members
                                                                                                                                                      Petroni K., Urzaińqui A., Beyan M., Ma
Tonelli C., Paz-Ares J., Weisshaar B.;
                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               198 NLKTGGRNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180 LEEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ--DINLELSIGIYSADSSRVSNANSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLFKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDPQTHRPLNQ-TANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGRSPCCEKAHTNKGAWTKEEDDRLVAYIRAHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSN 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDPTTHRSINDGTASQDQVT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
62
232 AA;
                                                                                                                                                                                                             COLUMBIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                               Denekamp M., Greco R., Jin H.-L., Leyva A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -DTKHKVAVDIMIKEENSPVQERCPDLNLDLKI---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26164 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             52.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---SSTLCFVCRLGIQNSKDC-SCSDGVGN
                UNKNOWN_1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 704.5; DB 1
Pred. No. 8.5e-54;
4; Mismatches 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MYB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8B3943FCB0D403D4 CRC64,
                                                                                                                                                                      Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         246
                                                                                                                                                                                                                                                                                                                                                                                              Embryophyta; Tracheophyta;
edons; core eudicots; Rosidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SPPCQQQINYHQE
                                                                                                                                            ō,
                                                                                                                                            the
                                                                                                                                                                      Meissner
S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             232;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --SNANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   57;
                                                                                                                                            R2R3-MYB
                                                                                                                                                                                                                                                                                                              ۳
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
```

DЬ S

LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG

61

Matches

Similarity

Conservative

30;

Indels

58;

Gaps

9

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SQ
                                                                                                                                                                                                                      DE CONTRA RAP DE CORDE DE RAP 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 149; Conserv
                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                       Plant physiol: 121:313-313(1999).
EMBL; UZ6933; AAF13100.1; -
HSSP; PD1103; IPOM.
InterPro; IPR001395; Aldo_ket_red.
InterPro; IPR00105; Myb_DNA_bind.
Pfam; PF00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9SM28;
Q9SM28;
Q1-MAY-2000
Q1-MAY-2000
Q1-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE;
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Cloning of three MYB-like genes from Arabidopsis thaliana (Accession Nos. U26933, AF048841, and U26934) (FGR99-138)."; Plant Physiol: 121:313-313(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arabidopsis thaliana (Mouse-ear cress).

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta

Spermatophyta; Magnoliophyta; eudicotyLedons; core eudicots; Rosi

eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                        DNA-binding.
SEQUENCE 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-LANDSBERG ERECTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MYB32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA-BINDING
                                                                                                                                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                      PROSITE; PS00063; ALDOKETO_REDUCTASE_3; PROSITE; PS00037; MYB_1; 1. PROSITE; PS00334; MYB_2; 1. PROSITE; PS50090; MYB_3; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Li S.F., Heazlewood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NKGAWTKEEDORLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINYLRPDLKÄGNETE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRGIDPQTHRPLNQT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NKGAWTKEEDQLLVDYIRKHGEGCWRSLPRAAGLQRCGKSCRLRWMNYLRPDLKRGNFTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSN 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SSGTTSEKD-----YGNEEDWVLNLELSVGPSYRYESTRKVSVVDSAESTRRWGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SSGMTTDEEQQEQLHKKQQYGPSNGQDINLELSIG-IVSADSSR-VSNANSAESKPKVDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----SVVSPSSLONDVVETIHLDFSGPVKPEPVREEIGMVNNC-E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ANTINTYTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSLEEP----NCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLLSRGIDPNSHRLINE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PS50090; MYB_3; 2.
246 AA; 28151 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAHESDAVCLCCRIGLFRNESCRNCRVSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TremBLrel. 13, Created)
(TremBLrel. 13, Last seq
(TremBLrel. 17, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                        AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44.3%;
                                                                                                                                          31465 MW;
                       43.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Parish R.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation updat
Score 684; DB Pred. No. 6.3e 30; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 702;
Pred. No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2CA8A529153FF486 CRC64;
                                                                                                                                          6C06ACB15D794CAC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     274
DB 10;
5.3e-52;
hes 61;
                                                                                                                                                                                                                                                                                   UNKNOWN_1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                         274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rosidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7;
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
        Š
                           맑
                                           δÃ
                                                                        Query Match
Best Local
                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  049608;
01-JUN-1998
01-JUN-1998
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM SEQUENCE FROM MAYER K.F.X., Schueller MAR-1998) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-1998 (TrEMBLrel. 06, Created)
01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
MYB-LIKE PROTEIN (MYB-LIKE PROTEIN).
MYB-CHKE PROTEIN (MYB-LIKE PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                           Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosid
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                      EU Arabidopsis sequencing project;
Submitted (MAR-2000) to the EMBL/G
EMBL; AL022023; CAA17764.1; -.
EMBL; AL161586; CAB80216.1; -.
                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. Murphy G., Ridley Submitted (MAR-200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         049608
                                                                                                                                                              Mendel; 28225; Arath;Myb;28225.
InterPro; IPR001395; Aldo_ket_red
InterPro; IPR001005; Myb_DNA_bind
InterPro; IPR001005; Myb_DNA_bindlng; 2
SMART; SM00395; SANT; 2.
                                                                                                                                                                                                                                                                                         Mayer K.F.X.;
                                                                                                                                                                                                              HSSP; P01103; 1POM.
                                                                                                                                                                                                                                                                               Submitted (MAR-2000) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                 Purnelle B., Boutry M.,
                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=3702;
                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
        61
                           \vdash
                                              H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQN-----SNSNGFYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ--DINLELSIGIYSADSSRVSNANSAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDPATHRPINETKTSQ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
         LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG
                            MGRSPCCEKDHTNKGAWTKEEDDKLISYIKAHGEGCWRSLPRSAGLQRCGKSCRLRWINY
                                                                al Similarity 49.9
PS50090;
274 AA;
                                                                                                                                PS00063; ALDOKETO_REDUCTASE_3; PS00037; MYB_1; 1. PS000334; MYB_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -DERNLRFGR----VKHRCSACRFGFGNGKEC-SCNNVKCQTEDSSSSSYS
                                                                                                                                                                                                                                                                                                                             (MAR-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                 ₿
                                                                                                               ; MYB_2; 1
; MYB_3; 2
A; 31457
                                                                                                                                                                                                                                                                                                                             , Hudson
to the E
                                                                         43.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ·DERIQKRVEYSVVEERCLDLNLELRISPPWQDKFH-
                                                                                                                                                                                                                                                                                                                                                                                    Boutry M.,
                                                                                                          ; 2.
-7 MW;
                                                                                                                                                                                                                                                                                                                                                            C.;
the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                 Goffeau A., Mewes H.W., Lemcke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----KILSFGPQL
                                                                30;
                                                                                                                                                                                                                                                                                                                             n S., Mewes H.W., I
EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                         EMBL/GenBank/DDBJ
                                                                          Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                817C0609F7DB5517 CRC64;
                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                      Goffeau A.,
                                                                          684; DB 10;
No. 6.3e-52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          274
                                                                                                                                                      UNKNOWN_1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Å
                                                                                                                                                                                                                                                                                                                             Lemcke K., i
databases.
                                                                  61;
                                                                                                                                                                                                                                          databases
                                                                                                                                                                                                                                                                                databases
                                                                                                                                                                                                                                                                                                                                                                    databases
                                                                                                                                                                                                                                                                                                                                                                                      Hoheisel J.,
                                                                                  Length
                                                                  Indels
                                                                                     274:
                                                                                                                                                                                                                                                                                                                                        Mayer
                                                                                                                                                                                                                                                                                                                                                                                       Mewes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             287
                                                                                                                                                                                                                                                                                                                                                                                                                                      Rosidae;
                                                                                                                                                                                                                                                                                                                                        天. 写
                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                       ĸ
                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                             60
          120
                                                                  9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                 γ
                                                                                                                                                      망
                                                                            밁
                                                                                             δÃ
                                                                                                                밁
                                                                                                                                                                       δÃ
```

```
RESULT
023889
Q42379
ID Q
AC Q
DT 0
DT 0
                                                            RESULT
                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 120; Conserv
042379;
042379;
01-NOV-1996
01-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JAN-1998
01-JAN-1998
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00249; myb_DNA-bind1ng; 2.

SMART; SM00395; SANT; 2.

PROSITE; PS0037; MYB_1; UNKNOWN_1.

PROSITE; PS00334; MYB_2; 1.

PROSITE; PS00309; MYB_3; 2.

SEQUENCE 239 AA; 26725 MA; B937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   023889
                                                                                                                                                                                                                                                                                                                                                                                                                                          "Cloning and expression of five Gene 198:393-398(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              023889
                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; D88617; BAA23337.1;
HSSP; P01103; 1POM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-98036074;
Suzuki A., Suzuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Takaiwa F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-SEED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID-4530;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                121
                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                               61
                                                                                                                                                                       61
                                                            15
                                                                                                                       IDPOTHRPL 129
                                                                                                                                                                                                         MGRSPCCEKAHTNKGAWTKEEDQRLINYIRVHGEGCWRSLPKAAGLLRCGKSCRLRWINY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EK---IANFG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LRPDLKRGNFTLEEDDLIIKLHSLLGNKWSLIATRLPGRTDNEIKNYWNTHVKRKLLRKG
                                                                                                                                              LRPDLKRGNFTDDEDELIIRLHSLLGNKWSLTAGQLPGRTDNEIKNYWNTHIKRKLLARG
                                                                                                                                                                      LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG | 120
                                                                                                                                                                                              MGRSPCCEKAHTNKGAWTKEEDQRLIAYIRAHGEGCWRSLPKAAGLLRCGKSCRLRWMNY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQN-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EEPNCTASSGMTTDEEQQEQLHKKQQYGPSNGQ--DINLELSIGIVSADSSRVSNANSAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL
                                                                                                IDPQTHRPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ·DERNLRFGR---
 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel.
                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY
                                    PRELIMINARY;
                                                                                                129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed-9370307;
T., Tanabe F.,
                                                                                                                                                                                                                                                         43.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -- VKYRCSACRFGFGNGKEC-SCNNVKCQTEDSSSSSYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DERIQKRVEYSVVEERCLDLNLELRISPPWQDKLH----
                                                                                                                                                                                                                                                                                                  , 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05,
17,
 21,
 Created)
Last sequ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
                                                                                                                                                                                                                                             Score 683; DB 10;
Pred. No. 6.6e-52;
7; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                           B937E5E7848826F4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        myb-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tok1 S.,
  sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              239
                                      269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₿
                                      A
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Washida H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         genes
                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                         from rice seed
                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -SNSNGFYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tracheophyta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wu C .- Y . ,
                                                                                                                                                                                                                                                                         239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                                                                                                                                                                60
                                                                                                                                                                                                                       60
```

```
Query Match 43.0%;
Best Local Similarity 48.8%;
Matches 142; Conservative 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mendel; 6896; Arath; Myb; 6896.
InterPro; IPR001005; Myb_DNA_bind.
Pfam; PF00249; myb_DNA-binding; 2.
SMART; SM00395; SANT; 2.
SMART; SM00395; SANT; 2.
PROSITE; PS00037; MYB_1; 1.
PROSITE; PS000334; MYB_2; 1.
PROSITE; PS00030; MYB_3; 2.
DNA-binding.
SEQUENCE 269 AA; 31009 MW; 7A6C5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Arabidopsis thaliana chromosome II BAC T24I21 genomic sequence."; Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; X90385; CAA62033.1; -: EMBL; U26937; AAA99762.1; -- EMBL; U26937; AAA99762.1; -- EMBL; D26937; AAA99762.1; -- EMBL; D26937; AAA99762.1; -- CAMBL; D26937; AAA99762.1; -- CAMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; eudicotyledons; core eudicots; Rosidae;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lin X., Kaul S., Shea T.P., Fujii C.Y., Shen M., VanAken S.E.,
Barnstead M.E., Mason T.M., Bownan C.L., Ronning C.M., Benito M.,
Carrera A.J., Creasy T.H., Buell C.R., Town C.D., Nierman W.C.,
Fraser C.M., Venter J.C.;
"Arabidopsis thaliana chromosome II BAC T24121 genomic sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-LANDSBERG ERECTA; Heazlewood J.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.

Quaedvlieg N.E.M., Dockx J., Keultjes G.G.M., Smeekens J.C.M.;
Submitted (AUG-1995) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-2001 (TrEMBLrel.
Y49 GENE.
MYB OR Y49 OR T24121.13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSSP; P01103; 1POM.
TRANSFAC; T02540; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Li S.F., Parish R.W.; "Isolation of two novel myb-like genes from Arabidopsis and studies the DNA-binding properties of their products."; Plant J. 8:963-972(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-LANDSBERG ERECTA;
MEDLINE-96132152; PubMed-8580966;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-CV. COLUMBIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (MAY-1995) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=3702;
                                                                                                                                                                                                    163
213
                                                                             238 ESKPKVDNNNFQFLEQAMVAKAVCLCWQLGFGTSEICRNCQNSNSNGFYSY 288
                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 LRPDLKRGNFTEEEDELIIKLHSLLGNKWSLIAGRLPGRTDNEIKNYWNTHIKRKLISRG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EEPNCTASSGMTTDEEQ---QEQLHKKQQYGPSNGQDINLELSIGIVSADSSRVSNANSA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDPQTHRPLNQTANTNTVTAPTELDFRNSPTSVSKSSSIKNPSLDFNYNEFQFKSNTDSL 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LRPDLKRGNFTHDEDELIIKLHSLLGNKWSLIAARLPGRTDNEIKNYWNTHIKRKLLSKG 120
                                                                                                                                                                                                                                                                                                                                                                                              IDPATHRGINEA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35;
                                                                                                                                                                                                                                                                                                                                                                                         ----KISDLKKTKDQIVKDVSFVTKFEE----TDKSGD 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 681.5; DB 10; Length 269; Pred. No. 1e-51; 5; Mismatches 59; Indels 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7A6C5D7C3CA0135C CRC64;
                                                                                                                                                                                          -GPDLNLELRISPPWQNQREISTCTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                          212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

ş В Ş

밁

밁

Ş

Ş 밁 S

Search completed: January 23, 2002, 21:21:03 Job time: 565 sec

....

Page 8